

No.AV-24032/56/2021-AAI
Government of India
Ministry of Civil Aviation

B-Block,
Rajiv Gandhi Bhavan,
New Delhi.
Dated: 26th October, 2021

Subject: Draft Accessibility Standards and Provision of facilities for Persons with Disabilities (Divyangjan) in Civil Aviation Sector.

Ministry of Social Justice & Empowerment, Department of Empowerment of Persons with Disabilities (Divyangjan) has been mandated to notify the Harmonized Guidelines for Standards of Accessibility and Provision of facilities for Persons with Disabilities (Divyangjan) under the Rights of Persons with Disabilities Rules, 2017.

2. In order to implement the instant policy provision, Ministry of Civil Aviation have prepared said draft guidelines in respect of whole Civil Aviation Sector. A copy of the said draft Guidelines is annexed.

3. Comments/suggestions on the said draft may be sent to the undersigned at Room No.162, Ministry of Civil Aviation, 'A' Block, Rajiv Gandhi Bhawan, Safdarjung Airport, New Delhi-110003 or e-mailed to soaai.moca@nic.in, within three weeks from the date of uploading of this communication on website of the Ministry.



(Narendra Singh)
Deputy Secretary to the Government of India
☎ 24642145

ACCESSIBILITY STANDARDS AND GUIDELINES FOR CIVIL AVIATION



नागर विमानन मंत्रालय
MINISTRY OF
CIVIL AVIATION

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Introduction

1. Accessible India Campaign (AIC)

Accessibility is about giving equal access to everyone. As our social responsibility, people with reduced mobility should be given access to all facilities and services found in the communities. With this intention in mind, Department of Empowerment of Persons with Disabilities (DEPwD) launched Accessible India Campaign (Sugamya Bharat Abhiyan) on 3rd December 2015 as a nation-wide campaign for achieving universal accessibility for Persons with Disabilities (PwDs).

The campaign is based on the principles of the Social Model of Disability, that disability is caused by the way society is organized, and not the person's limitations and impairments. The physical, social, structural and attitudinal barriers prevent People with Disabilities from participating equally in the socio-cultural and economic activities. A barrier-free environment facilitates equal participation in all the activities and promotes an independent and dignified way of life.

This campaign has the vision to build an inclusive society in which equal opportunities are provided for the growth and development of Persons with Disabilities (PwDs) so that they can lead productive, safe and dignified lives. Accessible India Campaign seeks cooperation of all Central Government Departments/Ministries and State Governments to manifest this vision. It has two important components: the built environment accessibility and the transportation system accessibility.

2. Ministry of Civil Aviation (MOCA)

Located at Rajiv Gandhi Bhavan at the Safdarjung Airport in New Delhi, the Ministry of Civil Aviation is responsible for formulation of national policies and programs for the development and regulation of the Civil Aviation sector in the country. It is responsible for the administration of the Aircraft Act, 1934, Aircraft Rules, 1937 and various other legislations pertaining to the aviation sector in the country. This Ministry exercises administrative control over attached and autonomous organizations like the Directorate General of Civil Aviation, Bureau of Civil Aviation Security and Indira Gandhi Rashtriya Udan Academy and affiliated Public Sector Undertakings like National Aviation Company of India Limited, Airports Authority of India and Pawan Hans Helicopters Limited.

3. Airport Authority of India (AAI)

The Airports Authority of India is a statutory body working under the Ministry of Civil Aviation responsible for creating, upgrading, maintaining and managing Civil Aviation infrastructure and managing Indian air space including adjoining oceanic areas. It was formed on 1st April 1995 by merging the International Airports Authority of India and the National Airports Authority with a view to accelerate the integrated development, expansion, and modernization of the operational, terminal and cargo facilities at the airports in the country conforming to international standards. It endeavors to enhance focus on customer satisfaction and undertake improvements for upgradation of infrastructure and facilities.

The Mission of AAI is "To be the foundation of an enduring Indian Aviation network, providing high quality, safe and customer oriented airport and air navigation services, thereby acting as a catalyst for economic growth in the areas we serve."

4. Background

The Rights of Persons with Disabilities Act, 2016 states that the persons with disabilities enjoys the right to equality, life with dignity and respect for his or her integrity equally with others and steps shall be taken to utilize the capacity of persons with disabilities by providing appropriate environment and reasonable accommodation. Further, no person shall be deprived of his or her personal liberty only on the ground of disability and the persons with disabilities shall have equal protection and safety in situations of risk, armed conflict, humanitarian emergencies and natural disasters.

More-over, the need to take special measures to ensure that the persons with disabilities enjoy the full range of human rights and fundamental freedom is recognized by Article 14 of the Indian Constitution. Hence, accessibility for all is recognized as a basic necessity, and there are attempts all over the world to ensure this. Barrier-free features are now becoming fundamental to all design concepts.

There are two major documents detailing the norms for the accessibility of built environments in India. They are:

1. Annexure B, Anthropometrics and Specific Requirements for Barrier Free Buildings and Built Environment, Part 3 Development Control Rules and General Building Requirements, National Building Code of India, Bureau of Indian Standard (BIS), 2016 (referred to as NBC in this document).
2. Harmonised Guidelines and Space Standards for Barrier Free Built Environment for Persons with Disability and Elderly Persons, Ministry of Urban Development, 2015 (referred to as HG in this document).

Apart from these documents, the following documents are important for the Civil Aviation sector:

1. ICAO Annex 9, 14th Edition, October 2015
2. DGCA, Civil Aviation Requirements, Section-3 Air transport, Series 'M' Part I, revised on 09th July 2021 (referred to as CAR in this document)
3. Report of the Asok Kumar Committee for the Review of the Civil Aviation Requirements (CAR) for Persons with Disabilities, Ministry of Civil Aviation, 2012.

All the above mentioned documents were studied before making this manual and reference from the same has been taken as per the requirements of the airports. Also, suggestions given by the Ministry of Social Justice and Empowerment in various meetings with MOCA and AAI representatives have been incorporated in this book.

5. About this book

Air transportation today has become easier than ever. The Government policies on 'Open Sky' allowed the growth of airlines and also non-scheduled operators in the country. The new ideas of Low Cost and no frill concept have also brought the common man with average income group to travel by air.

As persons with disabilities and reduced mobility, like everyone else, are increasingly given the opportunity to travel by air, there is a need to standardize the conditions for travel of such persons so as to facilitate their acceptance and handling of their carriage by the airlines, airport operators, ground handling agencies, etc.

Airports Authority of India manages 137 airports, which include 24 International Airports (including 3 International Civil Enclaves), 10 Customs Airports (including 4 Customs Civil

Enclaves), 80 Domestic Airports and 23 Domestic Civil Enclaves at Defense airfields. This manual is an attempt at addressing the special requirements of airports and seeks to provide clear and concise guidelines that can help develop new accessible airports as well as upgrade the infrastructure at the existing airports. This manual is to be read in addition to the points covered in DGCA, Civil Aviation Requirements, Section-3 Air transport, Series 'M' Part I, revised on 09th July 2021.

This manual states standard guidelines on Accessible Airport Infrastructure, accessibility features to be provided by the Airlines and the Security Forces. It would help in implementing Universal Design features to enable passengers with disabilities and with reduced mobility to move about safely, freely and use all facilities within the airport terminals. It would also facilitate independent functioning of individuals, so that they can get into and participate in all activities of travel with dignity and safety.

6. Scope and applicability

The provisions contained in this book are on airport infrastructure required for creating accessible airports, accessibility features to be provided by the Airlines and the Security Forces. These shall be applicable to all the airports in India including all the private airports and airports managed by AAI. Existing airports need to retrofit their infrastructure to follow the design standards specified in this book. Furthermore, all the upcoming new airports need to incorporate the specified design features right from the planning stage.

The provisions contained in this book shall be applicable to the following:

- All Indian airlines/ carriers engaged in schedule and non-scheduled air transport services both domestic and international;
- All foreign airlines/ carriers engaged in schedule air transport operating to and from Indian Territory.
- All airport operators, including private/JVs, within Indian Territory.
- Aviation Security Group (ASG) / CISF / APSU deployed at airports

7. Definitions

- 7.1 **"Person with benchmark disability"** means a person with not less than forty per cent. of a specified disability where specified disability has not been defined in measurable terms and includes a person with disability where specified disability has been defined in measurable terms, as certified by the certifying authority [1]
- 7.2 **"Person with disability"** means a person with long term physical, mental, intellectual or sensory impairment which, in interaction with barriers, hinders his full and effective participation in society equally with others [1]
- 7.3 **"Universal design"** means the design of products, environments, programmes and services to be usable by all people to the greatest extent possible, without the need for adaptation or specialised design and shall apply to assistive devices including advanced technologies for particular group of persons with disabilities. [1]
- 7.4 **Person with reduced mobility (PRM)** means any person whose mobility when using transport is reduced due to any physical disability (sensory or locomotor; permanent or temporary), intellectual disability or impairment, or any other cause of disability, or age, and whose situation needs appropriate attention and the adaptation to his or her particular needs of the service made available to all passengers. [2]

- 7.5 **WCHR** - Wheelchair for distance, can ascent and descent steps
- 7.6 **WCHS**- Wheelchair for distance and steps, can walk to cabin seat
- 7.7 **WCHC** - Wheelchair, passenger is completely immobile

8. The Rights of Persons with Disabilities (RPwD) Act, 2016 [3]

The RPwD Act, 2016 was enacted on 28.12.2016 which came into force from 19.04.2017. The salient features of the Act are:

- I. Responsibility has been cast upon the appropriate governments to take effective measures to ensure that the persons with disabilities enjoy their rights equally with others.
- II. Disability has been defined based on an evolving and dynamic concept.
- III. The Act covers the following specified disabilities:
 - 1. Physical Disability
 - a. Locomotor Disability
 - i. Leprosy Cured Person
 - ii. Cerebral Palsy
 - iii. Dwarfism
 - iv. Muscular Dystrophy
 - v. Acid Attack Victims
 - b. Visual Impairment
 - i. Blindness
 - ii. Low Vision
 - c. Hearing Impairment
 - i. Deaf
 - iii. Hard of Hearing
 - d. Speech and Language Disability
 - 2. Intellectual Disability
 - a. Specific Learning Disabilities
 - b. Autism Spectrum Disorder
 - 3. Mental Behaviour (Mental Illness)
 - 4. Disability caused due to-
 - a. Chronic Neurological Conditions such as-
 - i. Multiple Sclerosis
 - ii. Parkinson's Disease
 - b. Blood Disorder-
 - i. Haemophilia
 - iii. Thalassemia
 - iv. Sickle Cell Disease
 - 5. Multiple Disabilities
- IV. Additional benefits have been provided for persons with benchmark disabilities and those with high support needs.
- V. Every child with benchmark disability between the age group of 6 and 18 years shall have the right to free education.
- VI. 5% reservation in seats in Government and Government aided higher educational institutions for persons with benchmark disabilities.

- VII. Stress has been given to ensure accessibility in public buildings (both Government and private) in a prescribed time-frame.
- VIII. 4% reservation in Government jobs for certain persons or class of persons with benchmark disability.
- IX. The Act provides for grant of guardianship by District Court or any authority designated by the State Government under which there will be joint decision – making between the guardian and the persons with disabilities.
- X. Broad based Central & State Advisory Boards on Disability to be set up as policy making bodies.
- XI. The Act provides for strengthening of the Office of Chief Commissioner of Persons with Disabilities and State Commissioners of Disabilities which will act as regulatory bodies and Grievance Redressal agencies and also monitor implementation of the Act. These Offices will be assisted by an Advisory Committee comprising of experts in various disabilities.
- XII. Creation of National and State Fund to provide financial support to the persons with disabilities.
- XIII. The Act provides for penalties for offences committed against persons with disabilities.
- XIV. Designated special Courts to handle cases concerning violation of rights of PwDs.

Part A: Accessibility Features to be provided by Airport Operator

1. Accessible Parking and drop-off/pick up point

1.1 Reserved parking **near terminal building** for persons with disability:

- i) Reserved parking to be provided for persons with disability next to the terminal building near the departure area and connected to the building entrance through an accessible route. Location of the parking should be such that the distance to the terminal entrance is minimum. No level changes to be present, where unavoidable, must be addressed by suitable accessibility features such as beveling, kerb ramp, ramp or an accessible lift.
- ii) The number of parking spaces to be given near the terminal area shall be calculated as per Table 1 [5]

Total number of car parking spaces in the parking lot	Required number of reserved parking spaces for PWD
1-50	1
51-150	2
151-250	3
251-350	4
351-450	5
451 and above	6

Table 1: Number of reserved car parking spaces in parking lot

- iii) The minimum dimensions of the parking to be 5000mm x 2500mm as shown in Figure 2.
- iv) A loading/unloading area (of minimum 1200mm width) shall be provided on the right side of each reserved parking space. Vehicles must be parked in one direction to utilize this loading /unloading area. Refer Figure 2. [6]
- v) On-floor signage (1200mm x 1200mm) of universal sign of accessibility in blue and white colour to be provided as per Figure 3 and Figure 7.
- vi) Vertical signage to be displayed at the reserved parking spaces as per Figure 55.
- vii) The loading/unloading area (also called the transfer bay) shall be painted with white diagonal lines as shown in Figure 3.

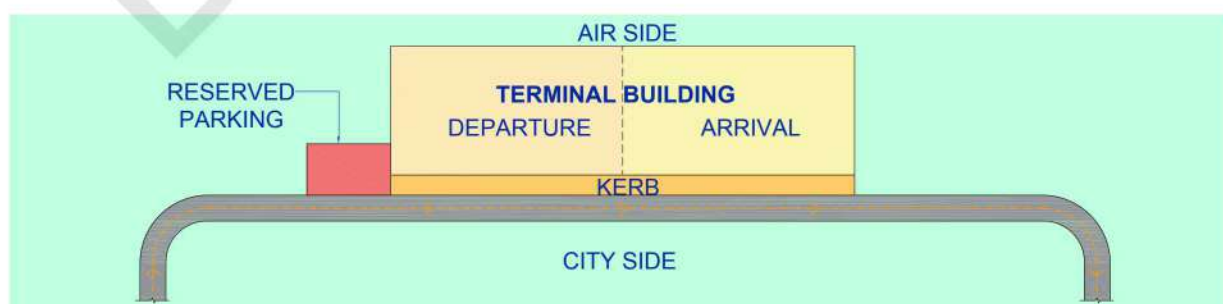


Figure 1: Schematic diagram showing the preferred location of reserved parking for persons with disability near terminal building

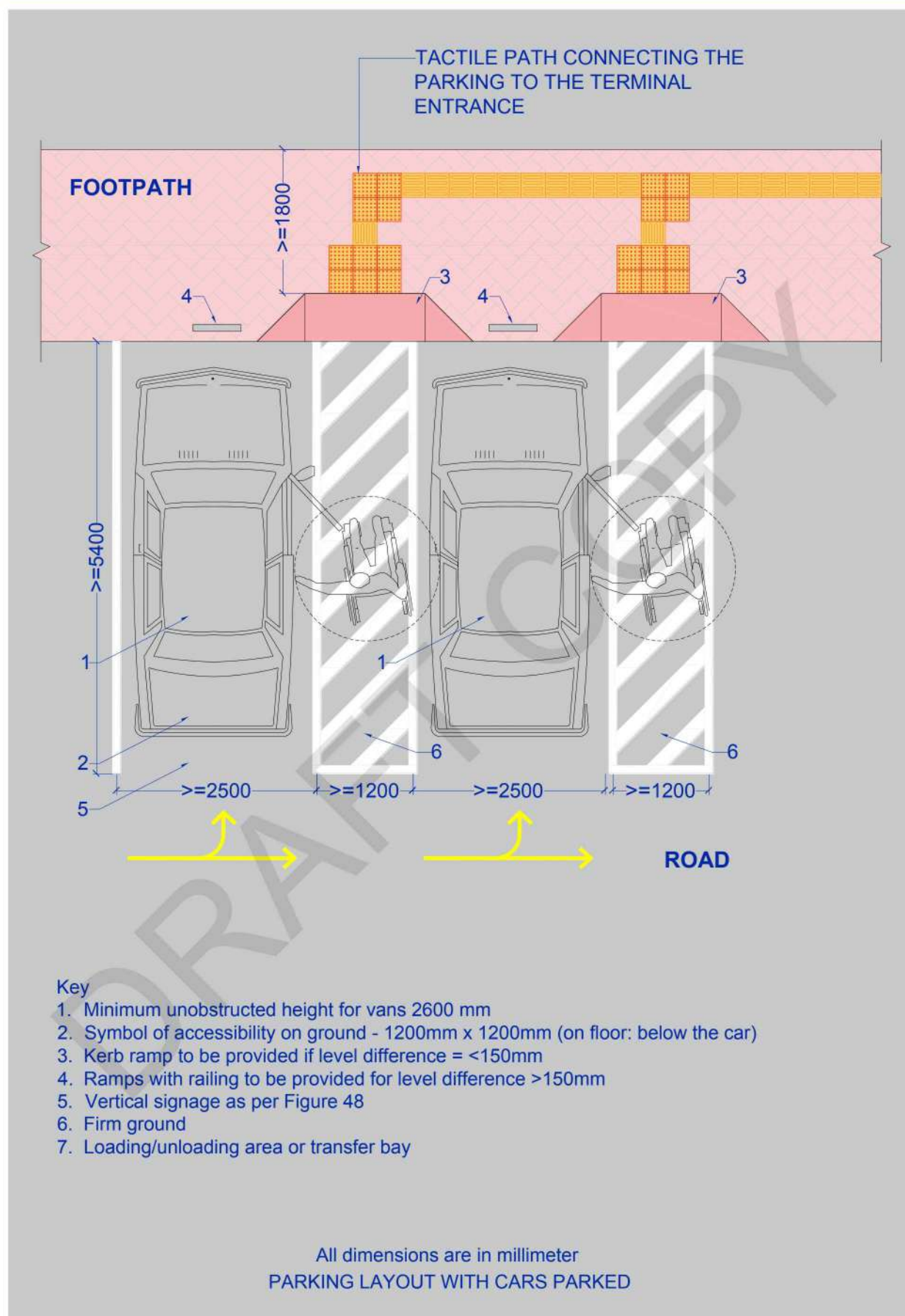


Figure 2: Reserved parking near terminal building for persons with disability

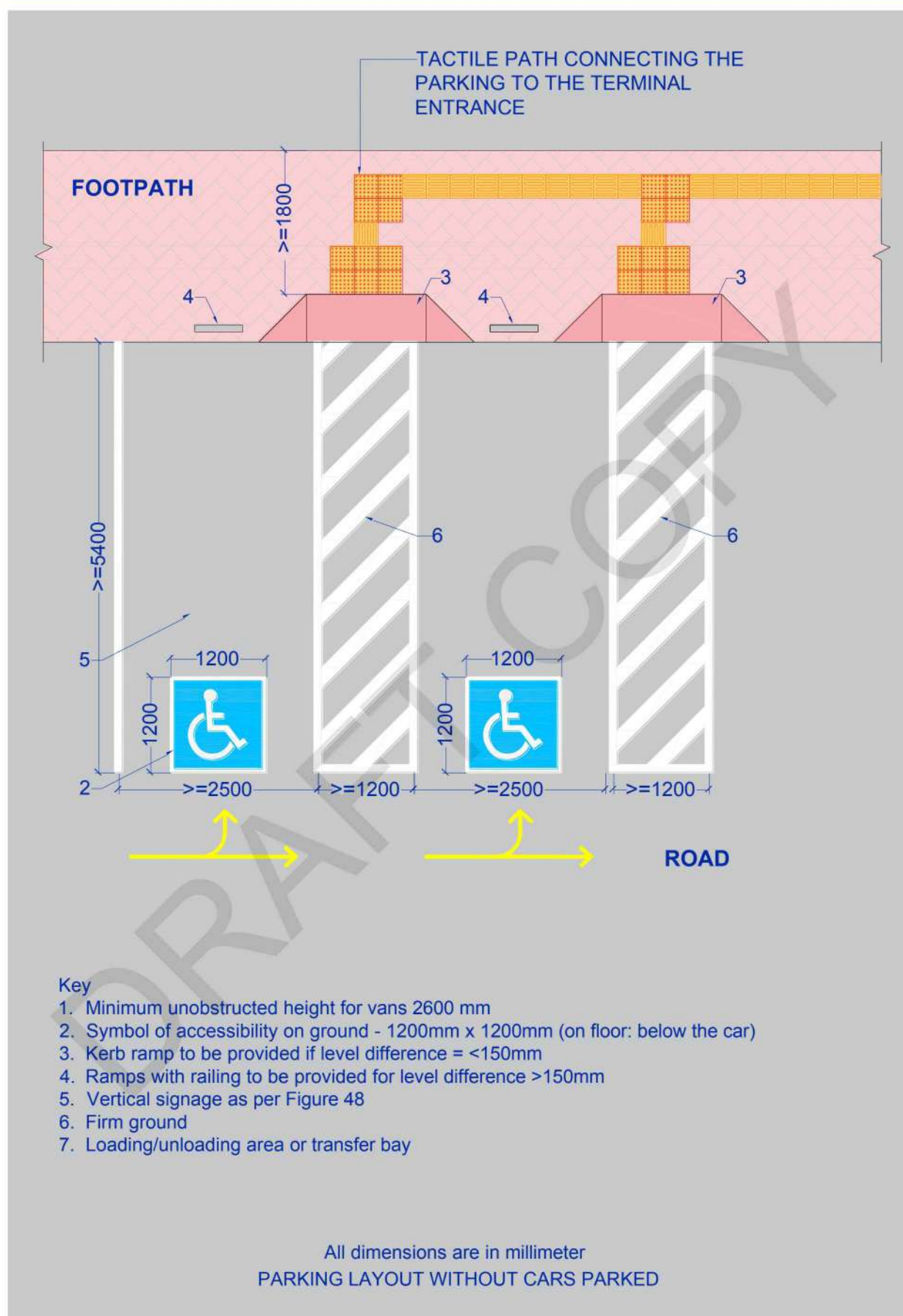


Figure 3: On-floor marking of reserved parking near terminal building for persons with disability



Figure 4: Example of parking symbol on floor and transfer bay marking

(Source: https://www.strippingtula.com/uploads/1/1/6/2/116266577/handicap-stall-and-crosshatch-tulsa-oklahoma_orig.jpg)

1.2 Pick-up and drop-off zone for persons with disability along the city-side kerb:

- i) One drop-off area in front of departure and one pick-up area in front of arrival of size 5000mm x 3600mm to be provided along the city-side kerb as shown in Figure 6. [7]
- ii) Vertical signage (600mm x 600mm) at a minimum height of 2400mm to be provided as per Figure 6. Refer Figure 56 and Figure 57 in section 18 for signage details. [7]
- iii) On-floor signage (1200mm x 1200mm) of universal sign of accessibility to be provided as per Figure 6 and Figure 7.
- iv) Accessible route (as per section 2) to connect the pick-up and drop off zone to the terminal entry.

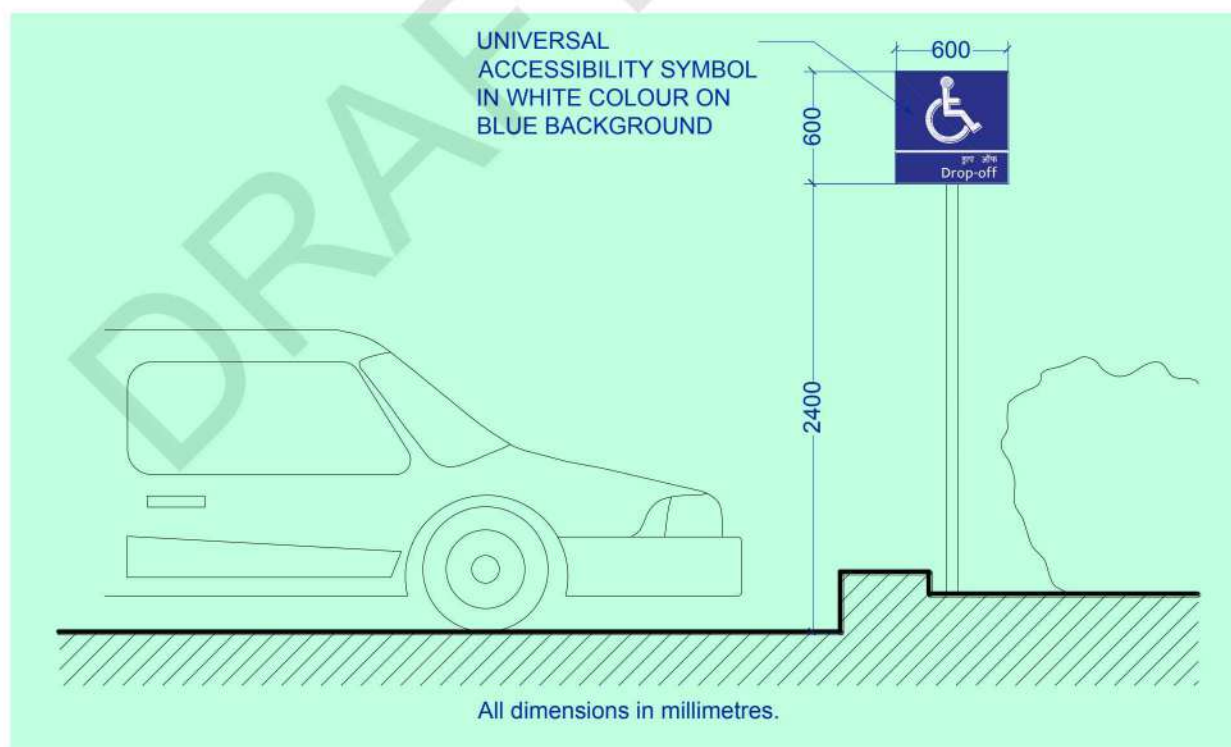


Figure 5: Vertical sign at City side kerb for accessible drop-off point

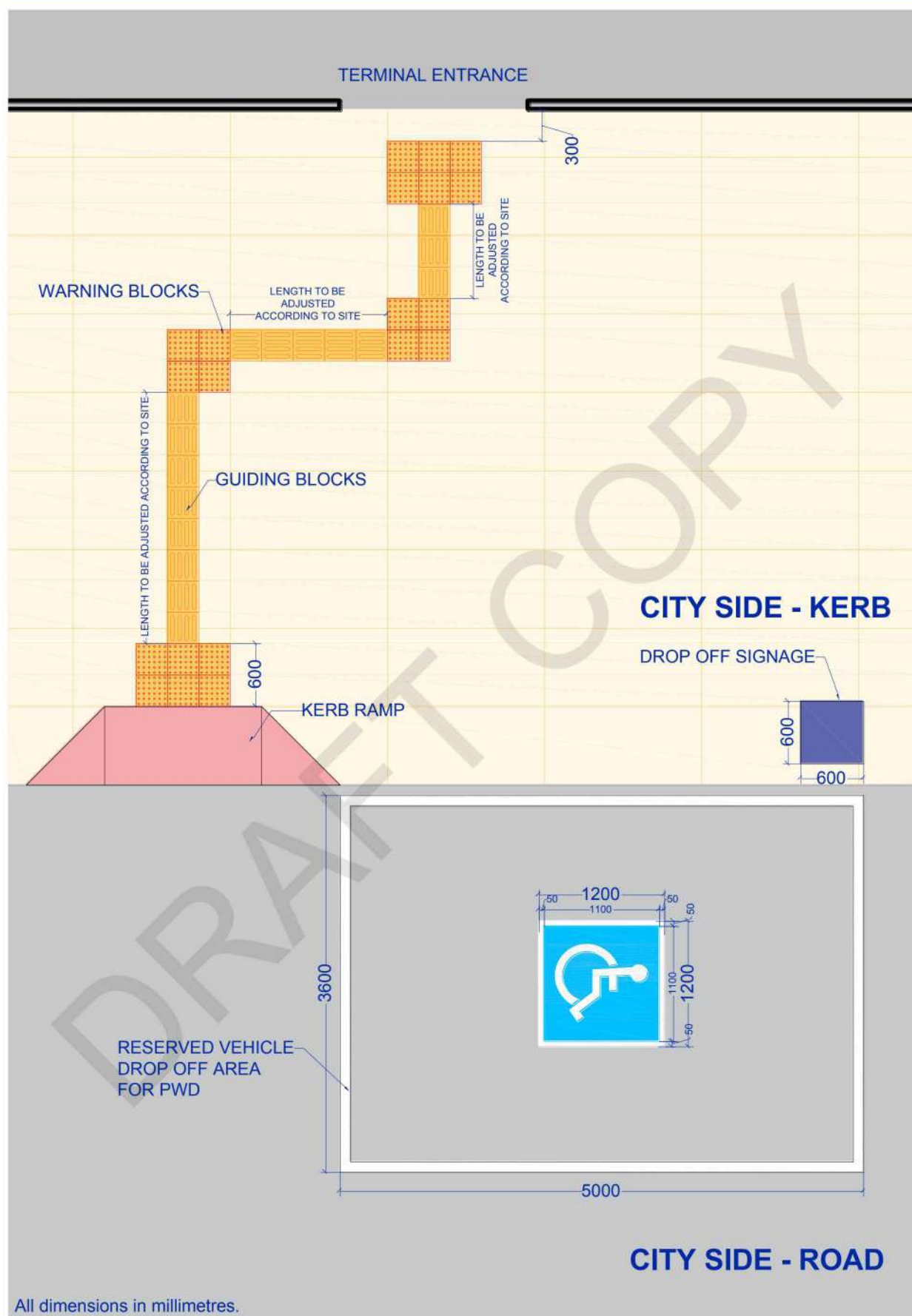


Figure 6: Example of guiding path from accessible drop-off/pick-up point on the city side kerb to the entry gate

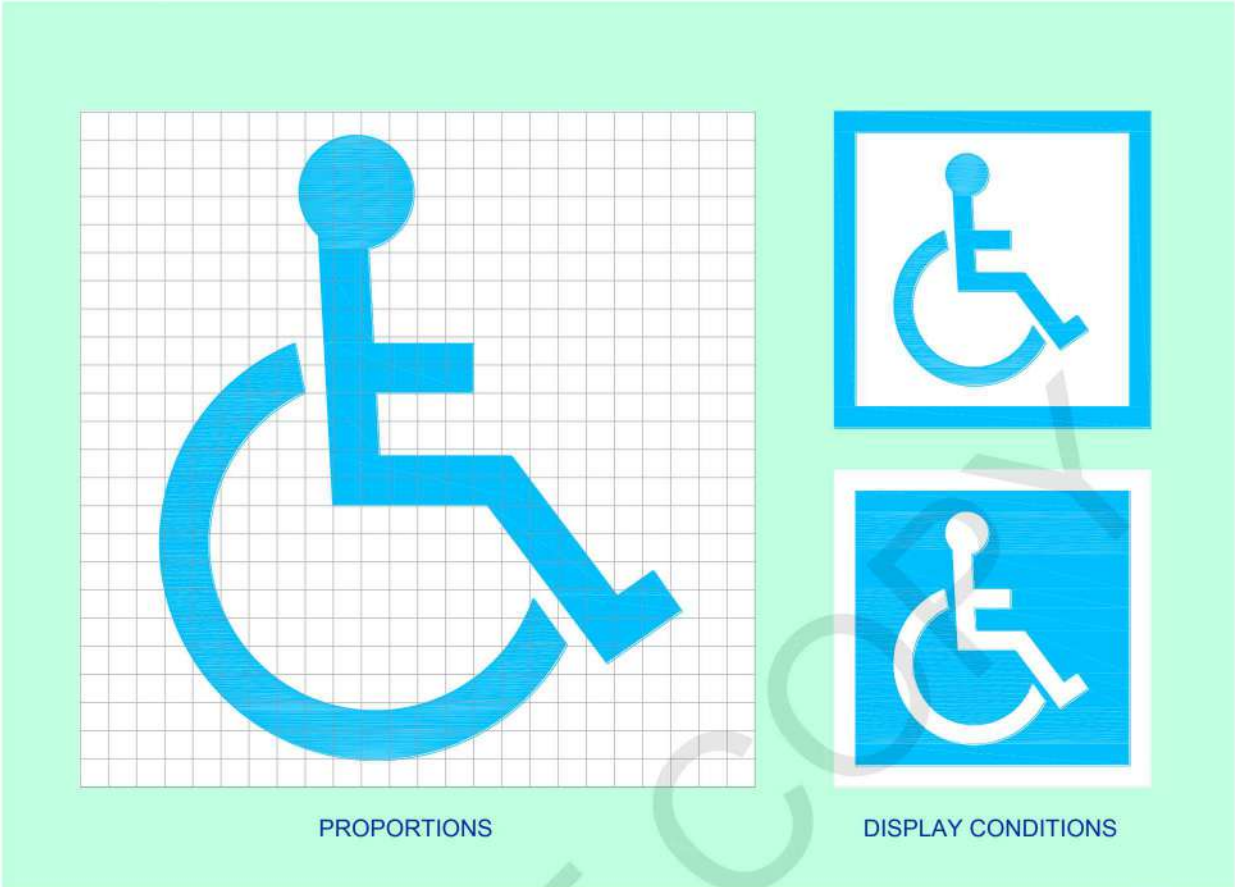


Figure 7: International Symbol of Accessibility (Source: Harmonised Guidelines MoUD, 2016)



Figure 8: Details of on-floor International Symbol of Accessibility

2. Accessible Route/Approach

- 2.1 Passenger walkways, including road crossings near the city side, to be accessible [4]
- 2.2 Continuous tactile path connecting all accessible elements and spaces (like drop of/pick up area, helpdesk, check-in counter, security check area, accessible lifts, ramps, accessible toilets, reserved seats, etc.) in a terminal building shall be provided [8]
- 2.3 Width of route to be 1800mm for 2 wheelchairs / 900 mm for 1 wheelchair [7] [8]
- 2.4 Anti-skid flooring (slip resistant with 'good' grading static coefficient of friction) shall be used [6].
- 2.5 Tactile material at least 300mm wide to be used for the path as per Section 5. [7].
- 2.6 Contrasting colour surface to be used for the tactile path for better visibility. [7]
- 2.7 Directional signage regarding accessibility features to be provided along the path. [8]
- 2.8 Wherever there is a level difference along the accessible route, a kerb ramp or ramp shall be provided as per Table 2 in section 3.
- 2.9 Slope, if any, shall not have gradient greater than 5%. The walkway shall not have a gradient exceeding 1:20. It also refers to cross slope. [4]
- 2.10 Uneven surfaces shall be repaired and anything that encroaches on corridors or paths of travel shall be removed to avoid creating new barriers. Any obstructions or areas requiring maintenance shall be cane detectable. [4]

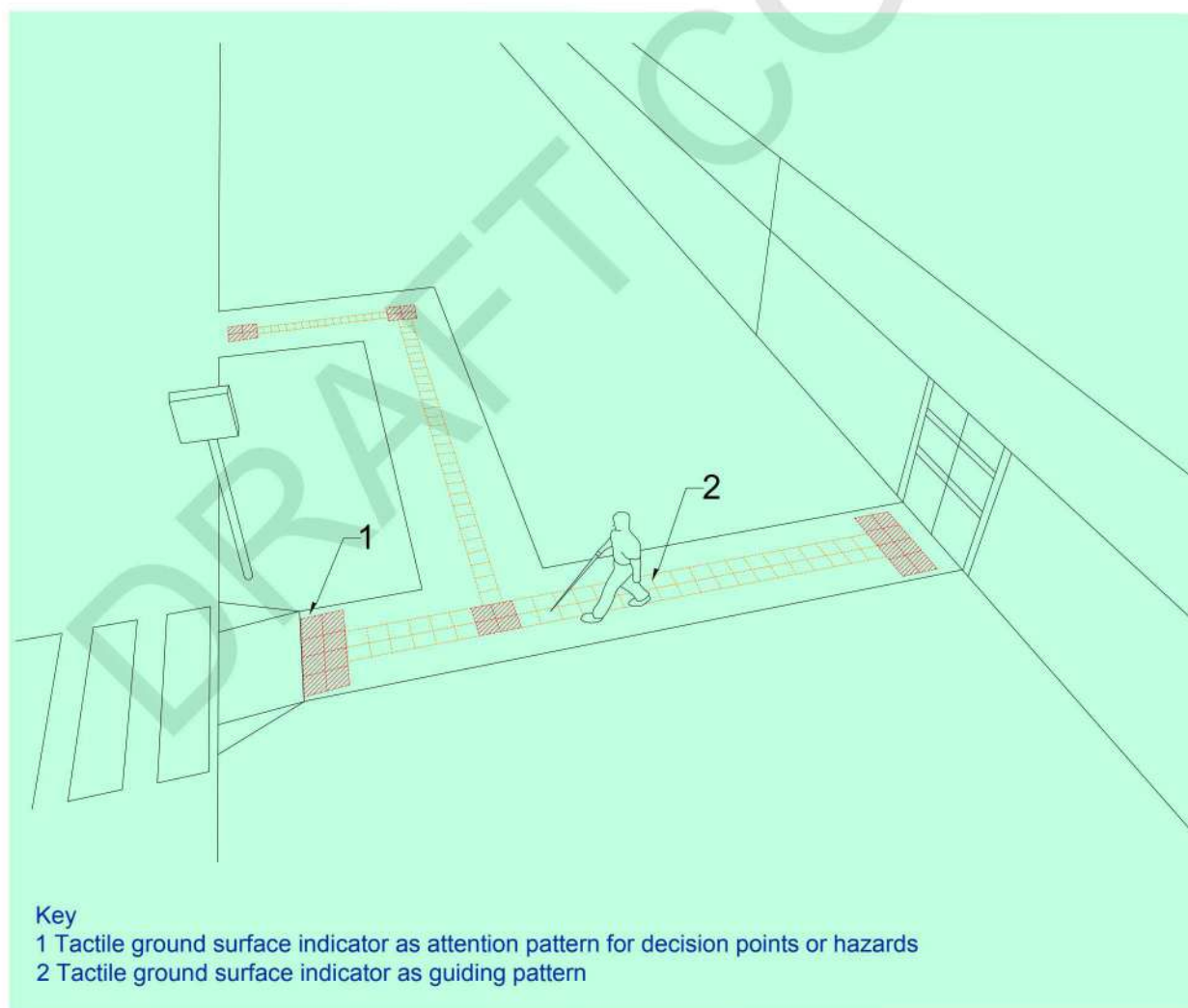


Figure 9: Example of tactile ground surface indicators used in open area (Source: NBC, 2016)

3. Accessible Entrance to the Building

- 3.1 The accessible route shall connect the drop off area along the city side kerb to at least one entrance of the departure block. Similarly, the accessible route shall connect pick-up area to one of the exit gates of arrival block. Refer Figure 6.
- 3.2 Ramps allow persons in wheelchair to move from one level to another. However, many ambulant Persons with Disabilities negotiate steps more easily and safely. Hence, it is preferable to provide accessibility by both steps and ramps. [7]
- 3.3 Where the horizontal run of the approach ramp exceeds 9000 mm length, an alternative stepped approach, in addition to the ramp approach, shall be provided for people with ambulatory disabilities. [7]
- 3.4 The entrance door shall have minimum clear width of 1000 mm [8]
- 3.5 If there is a level difference between the road level, kerb level and the entry gate then either a kerb ramp or ramp or lift to be provided as per the Table 2
- 3.6 Low height (700-900mm) telephone service to call the help desk for assistance to be provided at the city-side kerb near the drop off point for PRM. Signage to be provided above the telephone service as per Figure 58 in section 18. The location of this telephone should also be marked on the map, so that people can use navigation apps to get there without any additional support. [4]

Position of Entry/Exit gates of terminal with respect to drop-off zones and reserved parking	Level Difference (in mm)	Design Element to be used	Section to be referred for detail
Same Floor	0-150	Kerb Ramp	Section 13
	Above 150	Ramp with railings	Section 13
Different Floors	-	Accessible lift	Section 12

Table 2: Design elements to be used for difference in floor levels

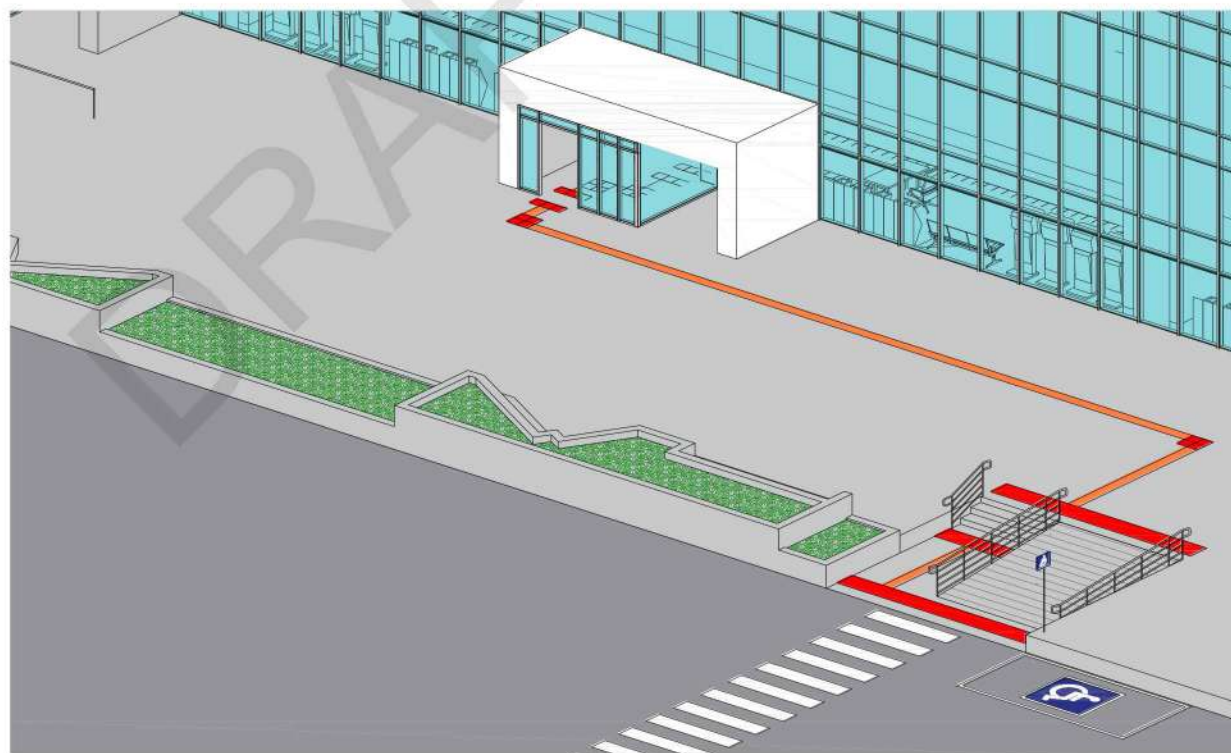


Figure 10: Example of an accessible approach with ramp and stairs connecting the drop off zone to entry gate

4. Accessible Reception (Helpdesk)

- 4.1 A helpdesk shall be provided near the entry gate along the accessible route in the departure block. It would cater to the people just starting their journey. Similarly, a helpdesk shall be given in the arrival lobby near the entry gates (airside) along the accessible corridor to assist passengers going to the baggage claim area.
- 4.2 Helpdesk with counters at two heights shall be provided with one counter at 800mm and other at a higher level of 1100mm. Refer detailed drawing attached in **Annexure A**. [8]
- 4.3 Minimum unobstructed space before the counter to be 900mm x 1200mm [8]
- 4.4 Clear leg space below counter to be at least 800mm wide and 700mm in height [8]
- 4.5 Depth of counter to be 550mm for closer reach to commuter [8]
- 4.6 Induction loop should be provided for persons with hearing impairment [8]
- 4.7 Information to be made available regarding accessible features of the building at the helpdesk (washrooms, drinking water etc.) [8]
- 4.8 Tactile/Audio maps of the airport building for directions should be provided at the helpdesk. A tactile map of the airport (showing all the important points of interest) for way finding with braille in three languages (Hindi, English and the local language) to be provided at the help desk. Examples are shown as Figure 14, Figure 15 and Figure 16 [8]
- 4.9 'Airport Help' signage to be put up near the counter as per Figure 60 in Section 18 [8]
- 4.10 All personnel on help desk to be given training to communicate efficiently with all the people with disabilities including training on sign language.
- 4.11 A groove to be provided on the desk side, to fix the guiding stick people carry.
- 4.12 Volunteers wearing AIC badges to be available to assist people with reduced mobility.
- 4.13 Maximum reach of wheelchair users to be considered (Figure 11) for designing the counters. All forms, information booklets, etc. to be kept within their reach. [5]
- 4.14 Airports to maintain statistics of number of PRM using the airport and various services.

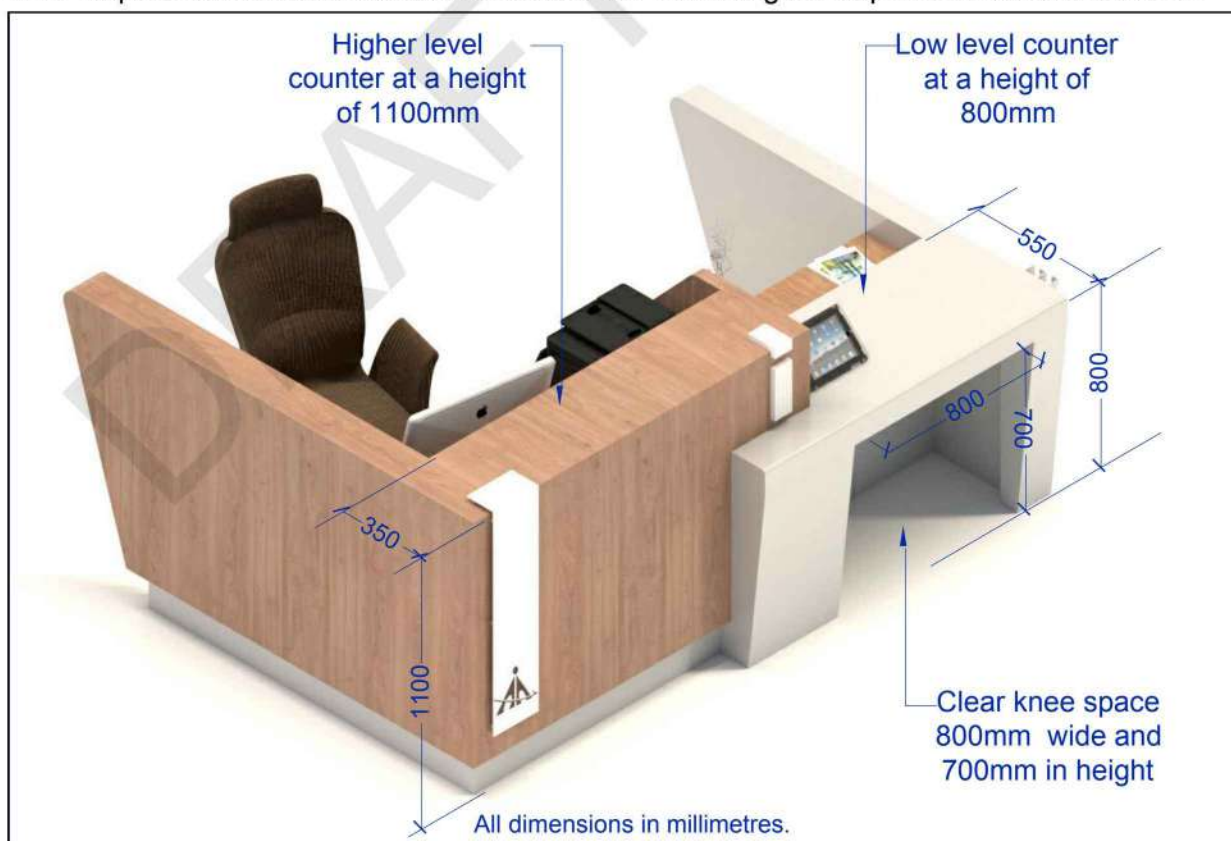


Figure 11: Necessary space under counter or stand for ease of wheelchair users

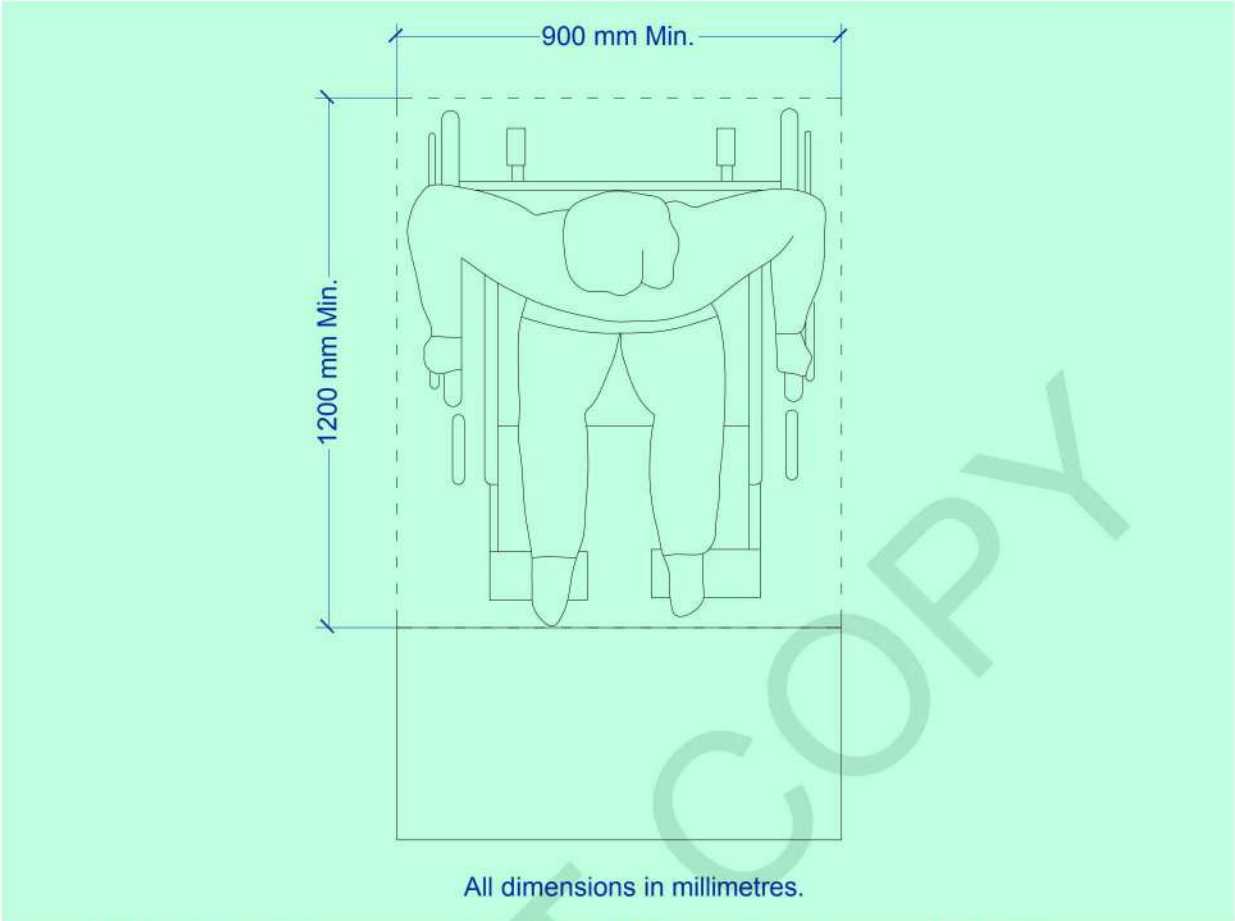


Figure 12: Unobstructed space required in front of the counter (Source: NBC, 2016)

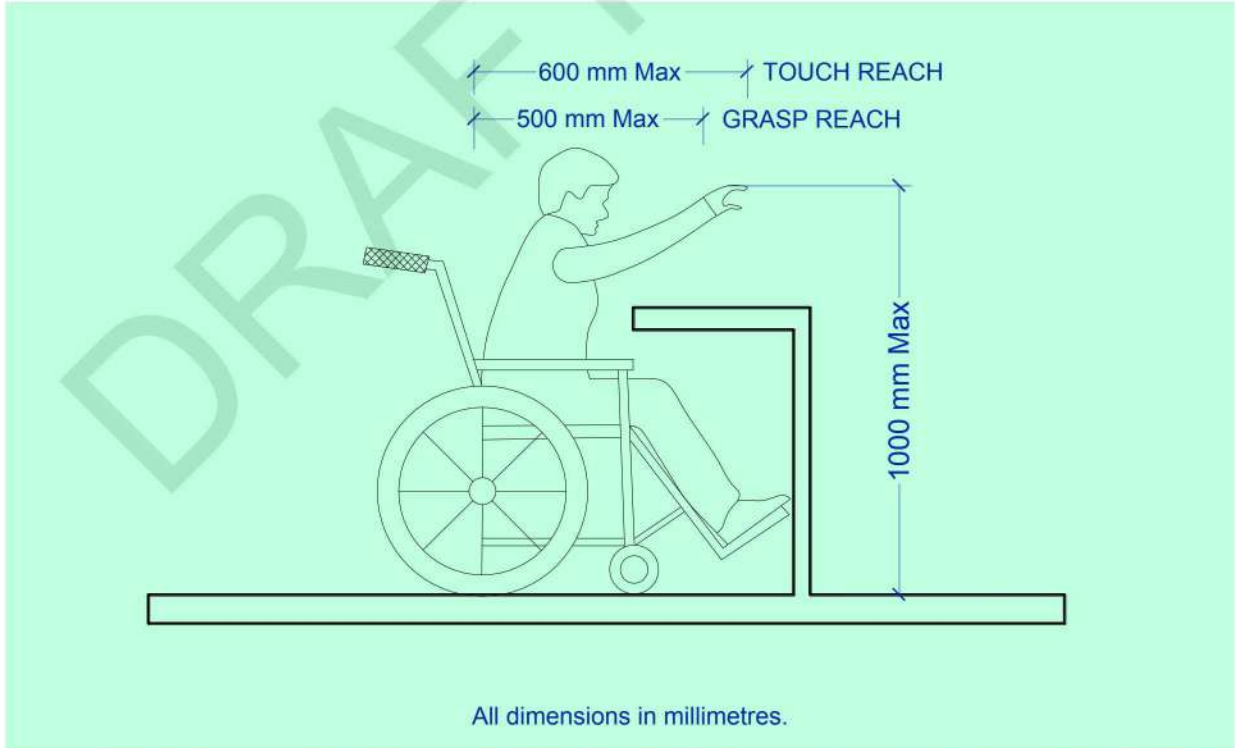


Figure 13: Maximum reach to be considered while designing counters, etc. (Source: NBC, 2016)



Figure 14: Large Tactile Floor Plan at one of the entrances to the terminal building at Ciampino Airport in Rome, Italy (Source: <https://cjlwalsh.ie/2012/11/>)

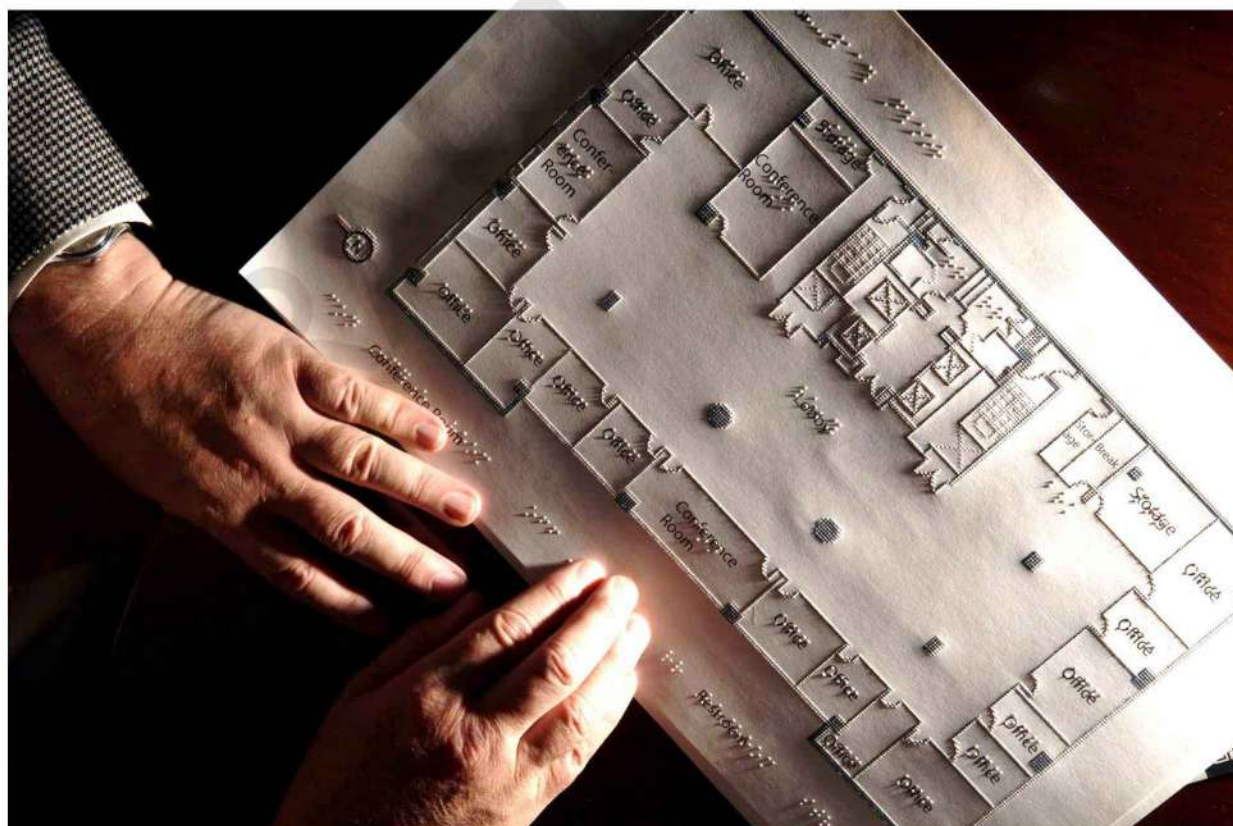


Figure 15: Example of tactile map of building to be displayed near the reception desk
(Source: https://1.bp.blogspot.com/-QVrUXmSQPMc/Vbeip_2lmyI/AAAAAAAAHKE/TtCouHcBfAk/s1600/tactile_map.jpg)



Figure 16: Example of Braille sign map and tactile facility at Mysuru Railways Station
(Source: <https://pbs.twimg.com/media/C7WPgtYVwAALEov.jpg>)



Figure 17: Accessible India Campaign badges to be worn by volunteers at the airport

5. Check-in area

- 5.1 Minimum unobstructed space before the check-in counter to be 900mm x 1200mm [8]
- 5.2 In smaller airports, at least one check-in counter to be accessible by wheelchair and marked for priority treatment to people with reduced mobility. A single row of warning tiles to be provided in front of the check-in counters and connected to the accessible route tactile flooring as shown in Figure 18
- 5.3 In bigger airports with dedicated islands for different airlines, one counter from each airline island to be marked as an accessible check-in counter. Starting point of each check-in counter island to be connected to the accessible route tactile flooring as shown in Figure 19.
- 5.4 At least one self-check in counter to be accessible by wheelchair and marked for priority treatment to people with reduced mobility.
- 5.5 International Symbol of Accessibility of 450mm x 450mm (refer Figure 7) to be displayed on the accessible counters to demarcate them.

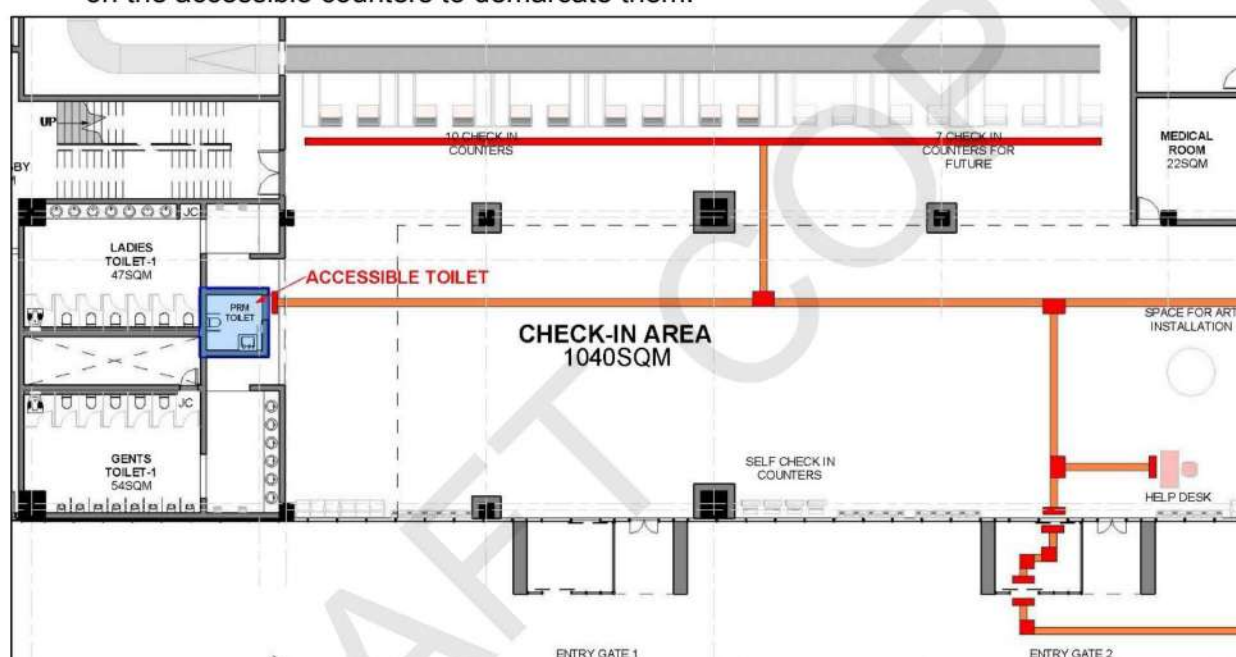


Figure 18: Example of warning tiles in front of check-in counters in small airports

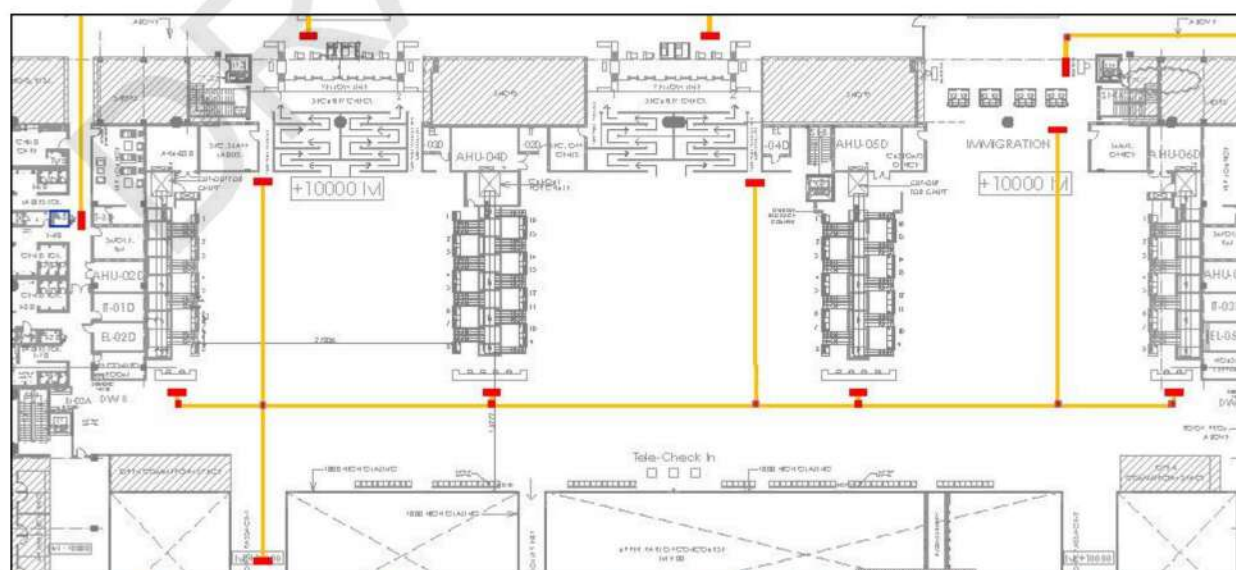


Figure 19: Example of accessible route connecting each check-in counter island in big airports

6. Accessible Corridor (Main passenger movement zone)

- 6.1 For corridors being used by the public, unobstructed 2200mm width to be maintained [8]
- 6.2 Tactile guiding path to be provided in the corridor as per section 8
- 6.3 Minimum clear width of the corridor (2200mm) to be kept free of any obstacles (plantation, seating arrangements, etc.) [8]
- 6.4 Corridors to be well lit with natural/artificial lighting (300 lux) [8]
- 6.5 Directional and informational signage to be provided along the corridors. [8]
- 6.6 Handrails/ Grab bars to be provided wherever possible as per section 15.
- 6.7 All the doors to open out from the corridor so as to keep the corridors unobstructed. [8]
- 6.8 Red strips to be given along the tactile path for people with partial visual impairment. [8]
- 6.9 Self illuminating strips may be provided along the corridor.
- 6.10 Uneven surfaces should be repaired and anything that encroaches on corridors or paths of travel shall be removed to avoid creating new barriers. Any obstructions or areas requiring maintenance shall be cane detectable. [4]
- 6.11 Passing over different levels and grooves, vertical level changes up to 6 mm may not need edge treatment. Changes in level between 6 mm and 12 mm shall be leveled off with a slope no greater than 1:2. [4]

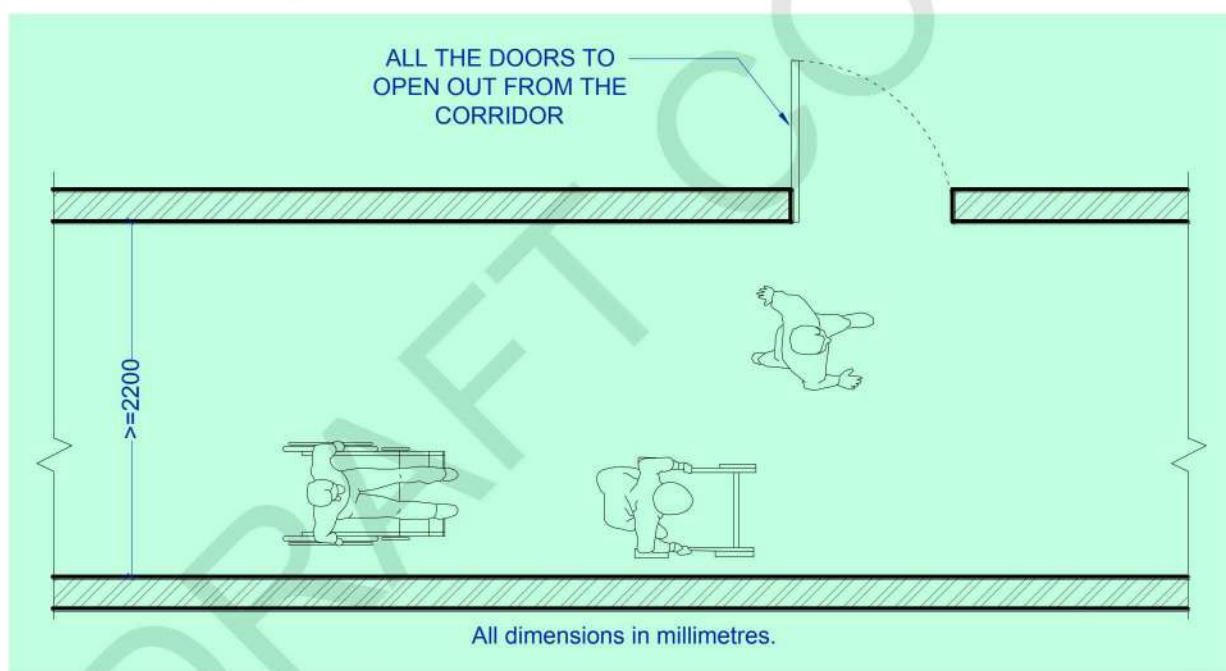


Figure 20: Preferred width of corridor

7. Security Check

- 7.1 One lane for males and one lane for females to give priority treatment to persons with disability shall be marked. The lane should not be reserved for them, instead used for giving them priority treatment. Frisking cubicle of standard size (minimum 1500mm x 1500mm for wheelchair turning) shall be given for both these lanes, male as well as female (for frisking people with amputation, etc.).
- 7.2 The person in charge of the counter should be given training to communicate efficiently with all the people with disabilities including training on sign language.
- 7.3 The DFMD panel of minimum 1000mm width shall be provided in these two lanes. [9]
- 7.4 International Symbol of Accessibility of 450mm x 450mm (refer Figure 7) to be displayed at the beginning of these two lanes for easy identification [9]

8. Baggage Claim

- 8.1 Demarcation of priority space of size 1500 x 1500mm as per shall be done for persons with disability near each baggage claim belt.
- 8.2 The marking should be easily visible from the arrival corridor and arrival hall gates.
- 8.3 The marking near each baggage belt shall be connected to the accessible route tactile flooring as shown in Figure 21.
- 8.4 Assistance to be provided by the airlines to passengers requiring assistance for picking up the luggage.
- 8.5 Universal symbol of accessibility to be marked on the ground along the straight part of the baggage belt, near the end closer to the exit gates as shown in Figure 22Figure 21.

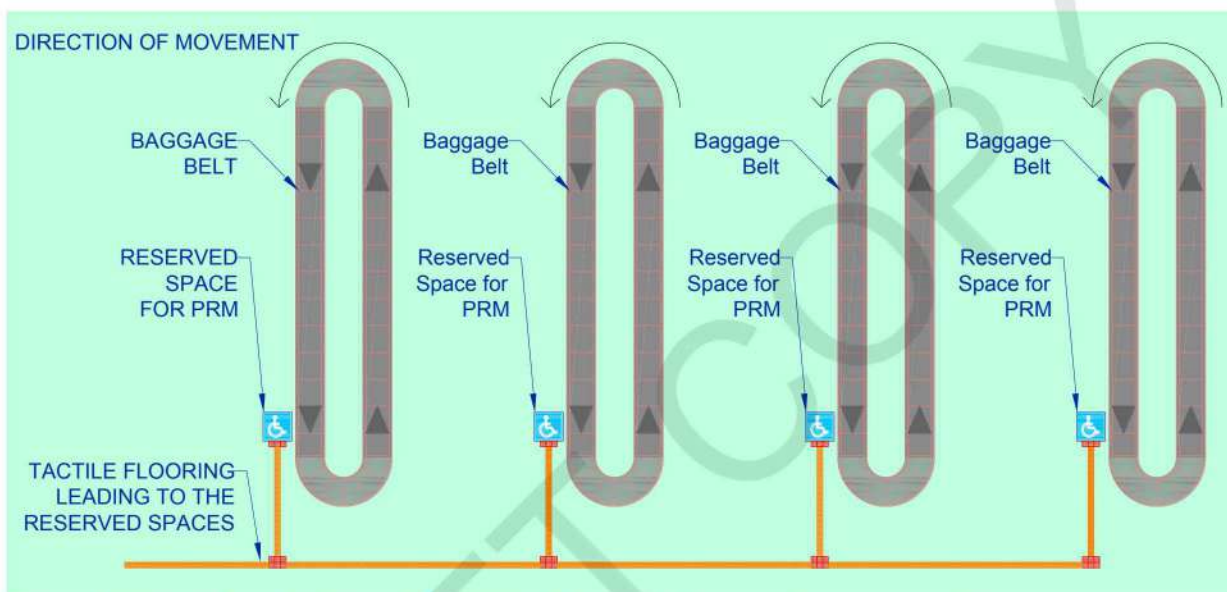


Figure 21: Location of Universal Symbol of Accessibility marking on ground

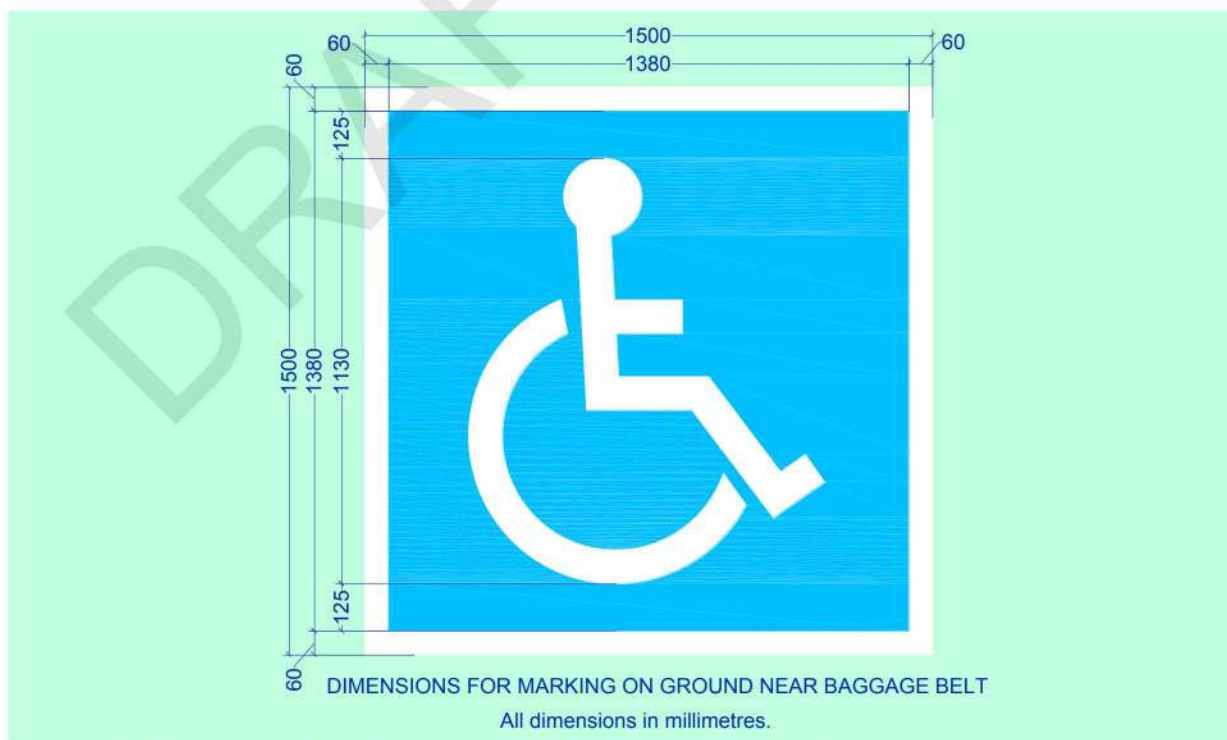


Figure 22: Details of on-floor International Symbol of Accessibility for Baggage Claim Area

9. Seating Spaces

- 9.1 Designated seating shall be provided for passengers with disabilities in check in area, and in the security hold area near the boarding gates (at least 3 chairs near each gate) within viewing distance of communication boards, and within hearing range of audio announcements as well. [4]
- 9.2 Terminal operators should provide seating in passenger service areas where there may be long waiting lines or times, including at ticket sales counters, check-in counters, immigration counters, secured screening and customs counters, outside toilet blocks and baggage retrieval areas. [4]
- 9.3 Such seating areas should be preferable corner seats identified by the universal symbol of accessibility with foldable/removable armrest to allow passengers with disabilities wanting to transfer from wheelchairs to these reserved seats for posture change. Shelter should be provided where this seating is outdoors. [4]
- 9.4 A single row of warning tiles to be provided in front of the reserved seats (Figure 23).

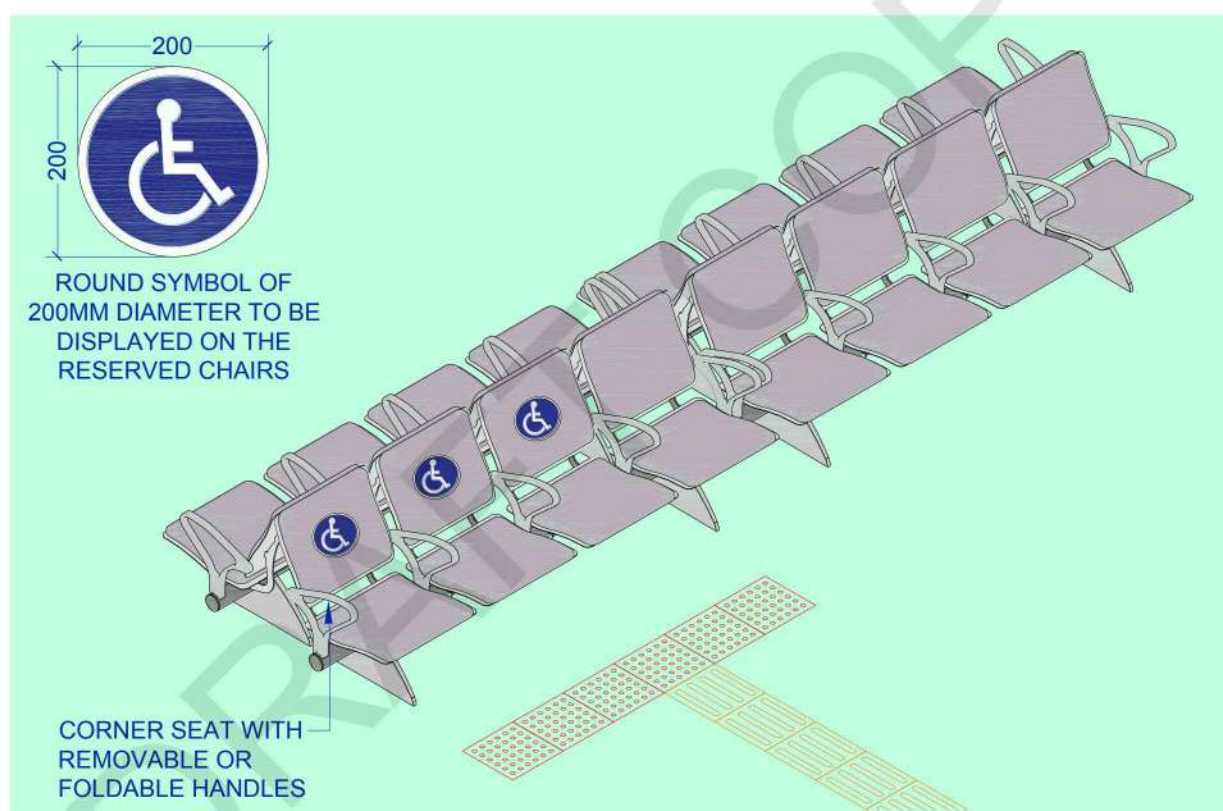


Figure 23: Reserved seating with tactile flooring in front

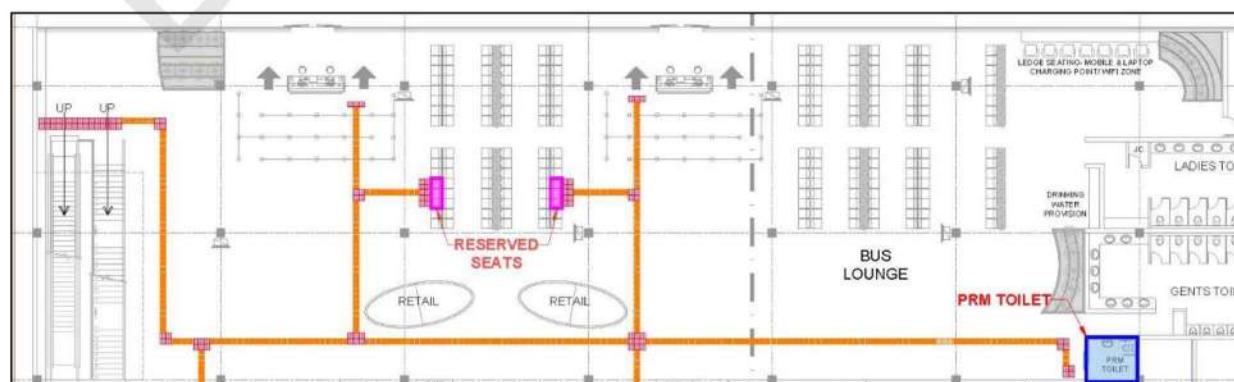


Figure 24: Example of reserved seats for PRM near each boarding gate

10. Immigration and Custom

- 10.1 At least one counter to be accessible by wheelchair and marked for priority treatment to persons with disability. The counter should not be reserved for them, instead used for giving them priority treatment. The person in charge of the counter should be given training to communicate efficiently with all the people with disabilities including training on sign language.
- 10.2 International Symbol of Accessibility of 450mm x 450mm (refer Figure 7) to be displayed at the beginning of these two lanes for easy identification.

11. Tactile Ground Surface Indicators (TGSI)

- 11.1 Tactile ground surface indicators or tactile guiding and warning tiles/blocks aid blind and vision impaired pedestrians negotiate the built environment, and shall be of the dimensions as given in Figure 25.
- 11.2 TGSI shall be installed along the accessible route connecting all the accessible spaces inside and outside the terminal building as mentioned in Section 2.2.
- 11.3 Two types of tiles are to be used:
- a) Guiding blocks –
These blocks indicate a correct path/route to follow for a person with visual impairment (Figure 25). It is recommended to install one/two rows of tactile guidance tiles **along** the entire length of the proposed accessible route. Also, there shall be clear headroom of at least 2.1 m height above the tactile guidance blocks, free of protruding objects such as overhanging tree branches and signage, along the entire length of the walk. [7] [5]
 - b) Warning blocks –
This block indicates a change in direction of the walkway or an approaching potential hazard, and serves as a warning of the approaching danger (Figure 25). They are used to screen off obstacles, drop-offs or other hazards, to discourage movement in an incorrect direction, and to warn of a corner or junction. Two rows of tactile warning tiles shall be installed **across** the entire width of the designated accessible pathway before road crossings, escalators, level changes, obstacles such as trees, and each time the walkway changes direction. Warning blocks shall be placed at 300mm from the beginning and end of the ramps & stairs, at landings and entrance to any door. [7] [5]
- 11.4 Different configurations of the warning tiles are to be used at intersections depending on the number of paths as shown in Figure 26
- 11.5 Warning tiles shall be provided in front of the following elements:
- a) helpdesk and accessible counters
 - b) lift openings (refer section 12, Figure 28)
 - c) ramps (refer section 13, Figure 34, Figure 33)
 - d) staircase (refer section 14, Figure 36, Figure 27)
 - e) door openings (refer section 11, Figure 27)
 - f) any level change on the accessible route
 - g) reserved seats and spots for people with reduced mobility (refer section 8, Figure 23)
- 11.6 TGSI tiles being used for the accessible route shall not be used elsewhere as a normal flooring material or just for aesthetic purpose to avoid confusion.

Note: Throughout the guidelines the colour of the warning tiles has been shown red and the colour of the guiding blocks has been shown orange for ease in differentiating between the two types of TGSI. However, the actual colour of the tiles depends on the material availability. It has to be of a contrasting colour with respect to the flooring.

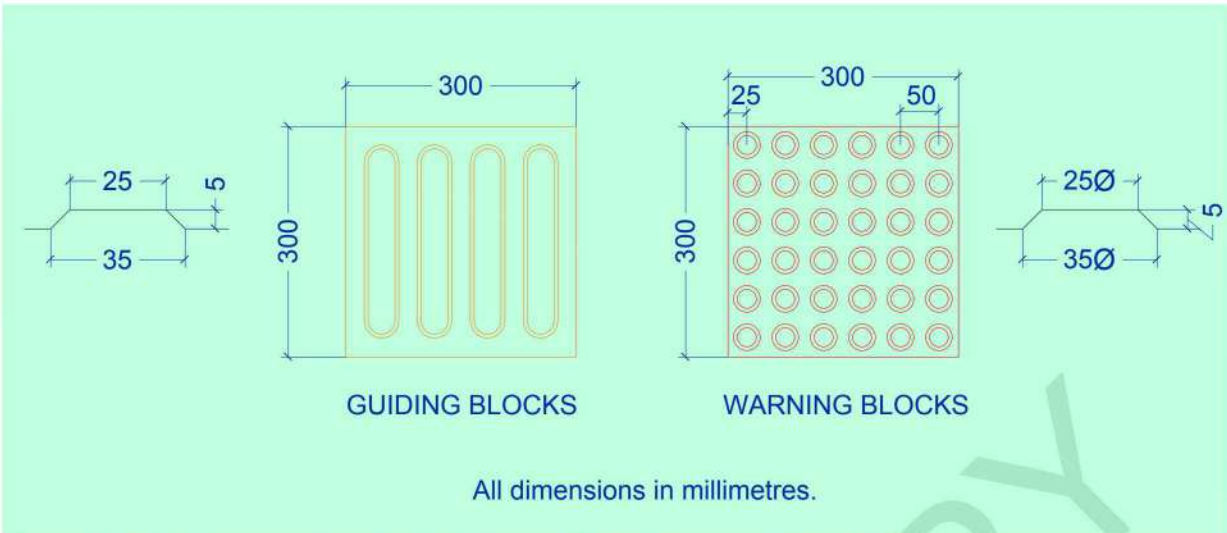


Figure 25: Tactile ground surface indicators (TGSi) (Source: NBC, 2016)

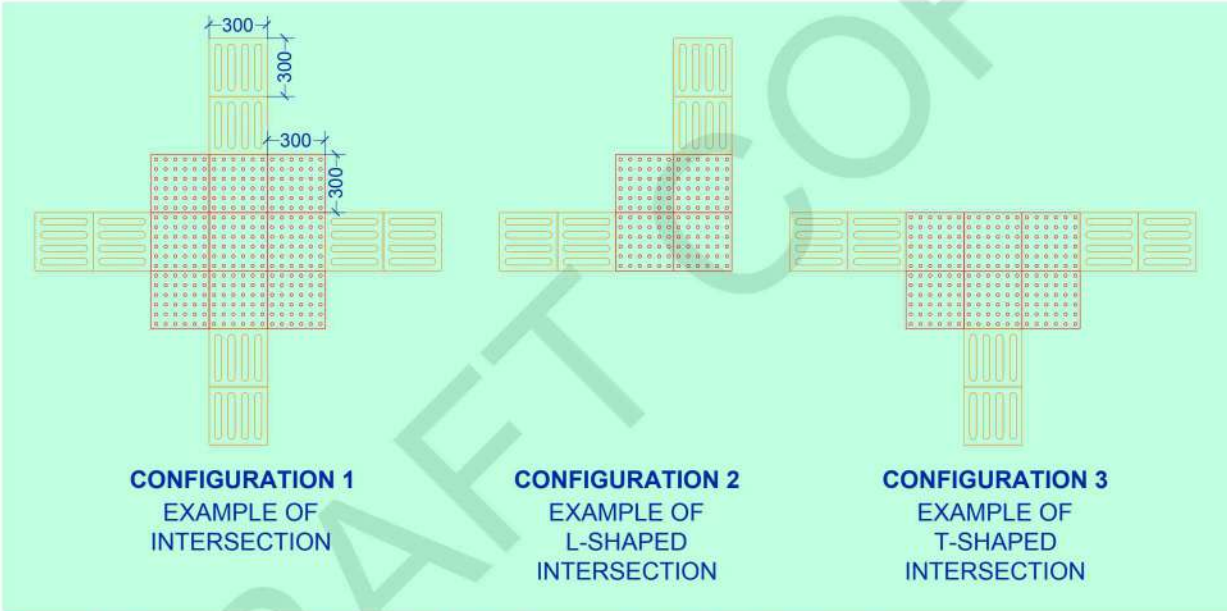


Figure 26: Arrangement of Tactile blocks for people with visual impairment

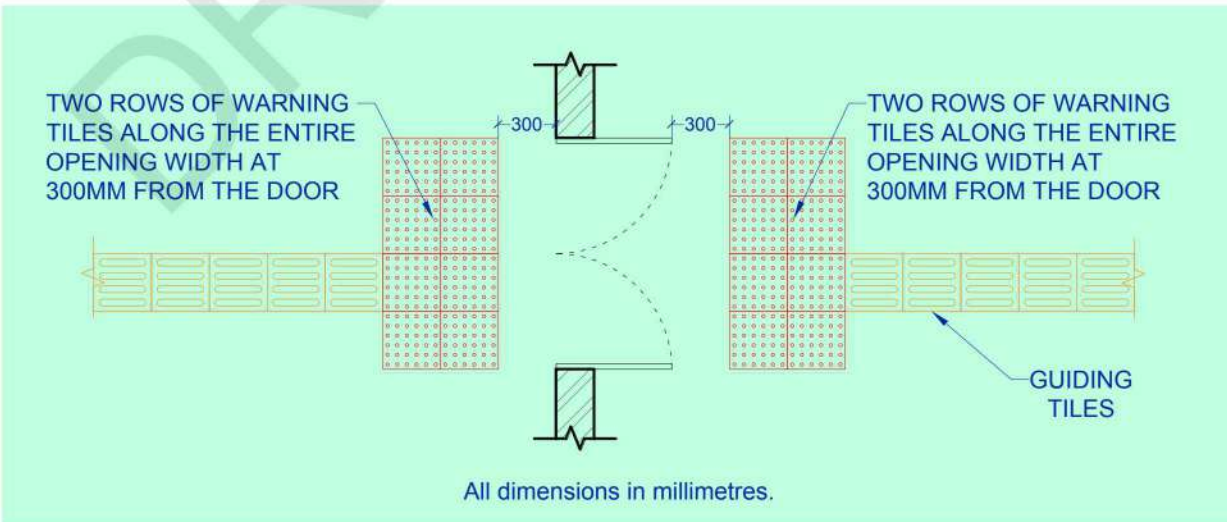


Figure 27: Placement of tactile tiles at a door

12. Accessible lift

- 12.1 Minimum internal car dimensions of 1500mm x 1500mm (if possible, 13 pax) with minimum clear opening of 1000mm to be provided. [7]
- 12.2 The entrance portal should be contrasting in colour. [7]
- 12.3 Accessible lift signage to be provided outside the lifts as per section 18
- 12.4 A sign indicating the number of the floor arrived shall be provided on each lift landing on the wall opposite the lift in big fonts with good colour contrast. [5]
- 12.5 Call button to be installed at a height of 800 mm to 1000 mm [7]
- 12.6 Braille buttons (in three languages – Hindi, English and the local language), emergency brake button and other operating mechanisms (control panels) to be provided at an accessible height of 650mm to 880mm. [8]
- 12.7 Grab bars to be placed on both the sides and rear of the lift at a height of 900mm from the floor level. [7]
- 12.8 Mirror to be placed at the rear of the lift. [8]
- 12.9 Accessible lift to be connected to the accessible route. Warning tactile tiles to be placed 300mm in front of the lift opening as shown in Figure 28.
- 12.10 It is recommended to install a floor directory of the main facilities and services available on the lift landing, along with an accessible emergency egress route that clearly indicates the location of the nearest refuge area for persons with disabilities. [5]
- 12.11 A non-contact sensor device shall be provided in the door opening to detect an entering or exiting passenger or an assistive device and prevent the risk of the passenger or assistive device from being hit by the leading door panel(s). The sensor device shall cover at least 2/3 of the door height measured from a distance of 25 mm above the door sill. Time of closing of an automatic door shall be more than 5 s and the closing speed shall not exceed 0.25 m/s. The door opening time shall be adjustable to suit the conditions where the lift is installed. A mechanism to increase this time shall be installed to be customized by a user with mobility impairments (for example by means of a button outside the car to call the lift to the floor for it to arrive with extended door opening time, and a button marked with a wheelchair symbol inside the car with the same purpose). Under normal operation the levelling accuracy of the lift car shall be ± 12 mm. [5]
- 12.12 Minimum Lighting level of 200 Lux to be maintained in the lift and minimum audio level for audio/video display to be 35 db.

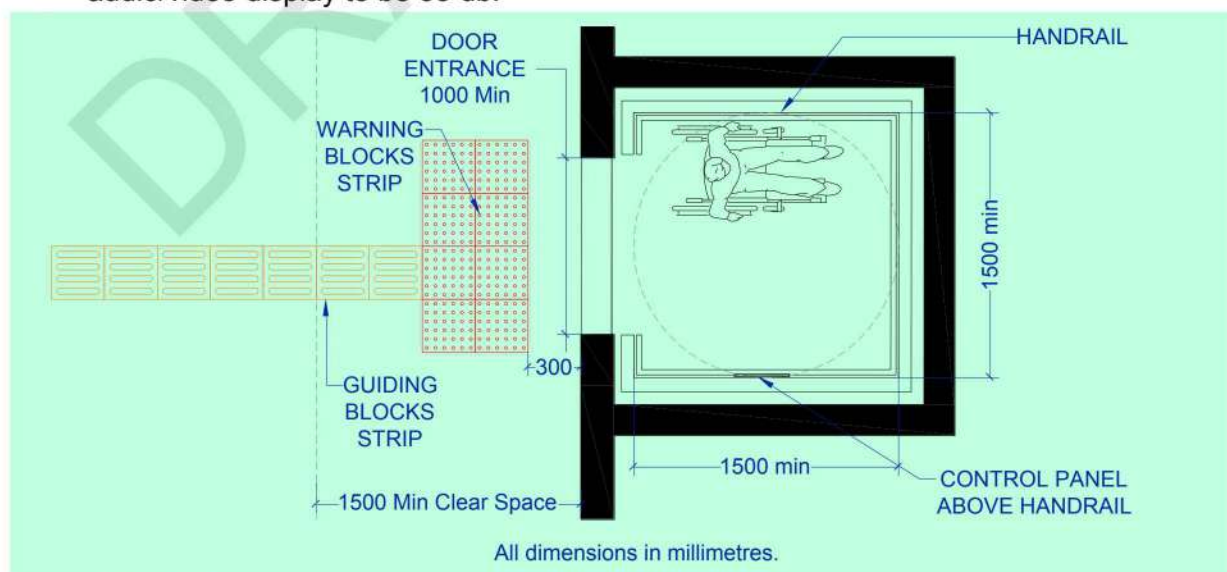


Figure 28: Lift Size

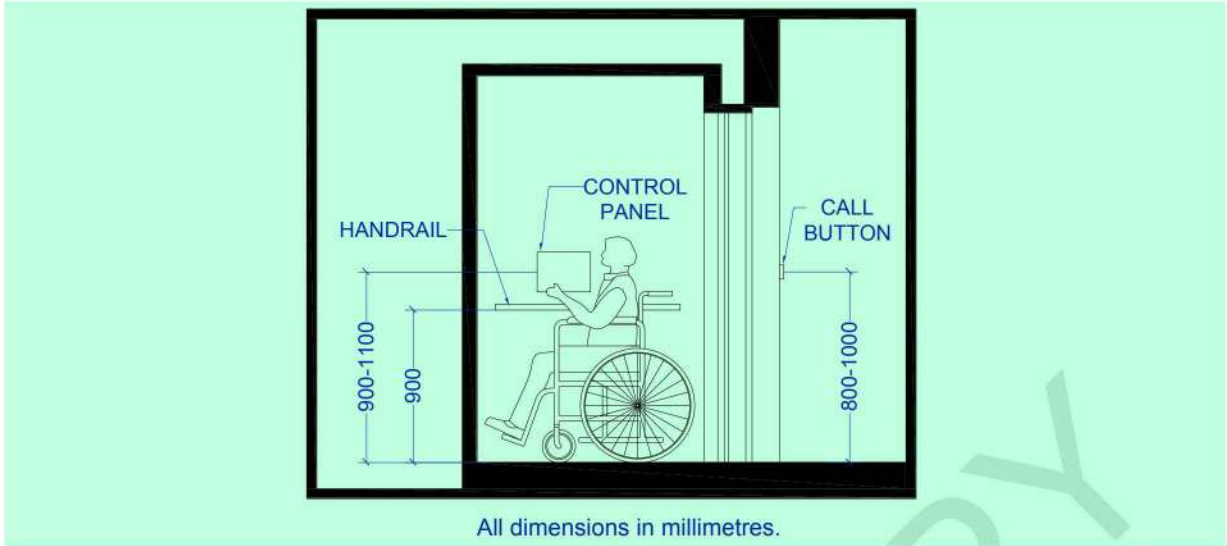


Figure 29: Placement of Lift accessories and lift signage



Figure 30: View showing lift details (Source: <http://www.melsa.com.sa/Elevators/NexWay>)



Figure 31: Example of lift buttons and railing (Source: <http://www.melsa.com.sa/Elevators/NexWay>, <https://docplayer.net/docs-images/66/55531468/images/20-0.jpg>)

13. Ramps

13.1 Ramps help people with wheelchairs, old people, etc. to move from one level to another comfortably. Two types of ramps can be given as per the level difference: Kerb ramp and ramp with railings.

13.2 Details of kerb Ramp (refer Figure 32)

- To be provided where the vertical rise is less than 150 mm; [7]
- The kerb ramp shall not be less than 1200 mm in width. It shall provide a clearance of at least 800 mm at the back of the kerb ramp on the footpath. [5]
- The gradient of a kerb ramp should not be steeper than 1:12; the flared sides should not be steeper than 1:10. [7]
- Shall have a slip-resistant surface; [7]
- Shall be designed to avoid water accumulation on the walking surface; [7]
- Does not require handrails; [7]
- Shall not project out into the road surface; [7]
- Shall be located or protected to prevent obstruction by parked vehicles; and [7]
- Shall be free from any obstruction such as signposts, bollards, etc. [7]

13.3 Details of ramp with railings (refer Figure 33 and Figure 34)

- To be provided along the accessible route on the city-side kerb and air-side kerb where the level difference is more than 150mm;
- Any of the three configurations of the ramp can be given as per site suitability: straight run, 90 degree turn and switch back or 180 degree turn (Figure 34)
- Shall have a maximum gradient of 1:12. However, recommended slope of ramp is 1:15 to 1:20 for easy maneuver of wheelchair as per Table 3; [8]
- Shall have a two rows of tactile warning blocks placed at 300mm from the beginning and ending of each ramp. [5]
- Shall have a minimum width of ramp of 1200mm; [7]
- Shall have continuous round handrails, on both sides and extended, rounded edges at the ends of 300mm as per section 15. The railing ends to have braille signage indicating the direction of movement. (example Figure 39 and Figure 40) [5] [7]
- Shall have anti-skid flooring and self illuminating strips on the edges.
- Shall have a level landing at the top and bottom of each run and also where the run changes direction [7]
- Signage showing the ramp to be provided as per section 18
- Accessible ramp to be connected to the accessible route and warning tactile tiles to be placed 300mm before and after the sloped surface.

13.4 Ramps are to be provided along the city-side kerb as well as air-side kerb if there is a level difference between the approach road/ground and kerb.

Level difference	Minimum gradient of Ramp	Ramp Width	Landing distance
≥ 150 mm ≤ 300 mm	1:12	1200 mm	-
≥ 300 mm ≤ 750 mm	1:12	1500 mm	Landings every 5 meters of ramp run.
≥ 750 mm ≤ 3000mm	1:15	1800 mm	Landings every 9 meters of ramp run.
≥ 3000 mm	1:20	1800 mm	Landings every 9 meters of ramp run.

Table 3: Minimum specifications for ramp

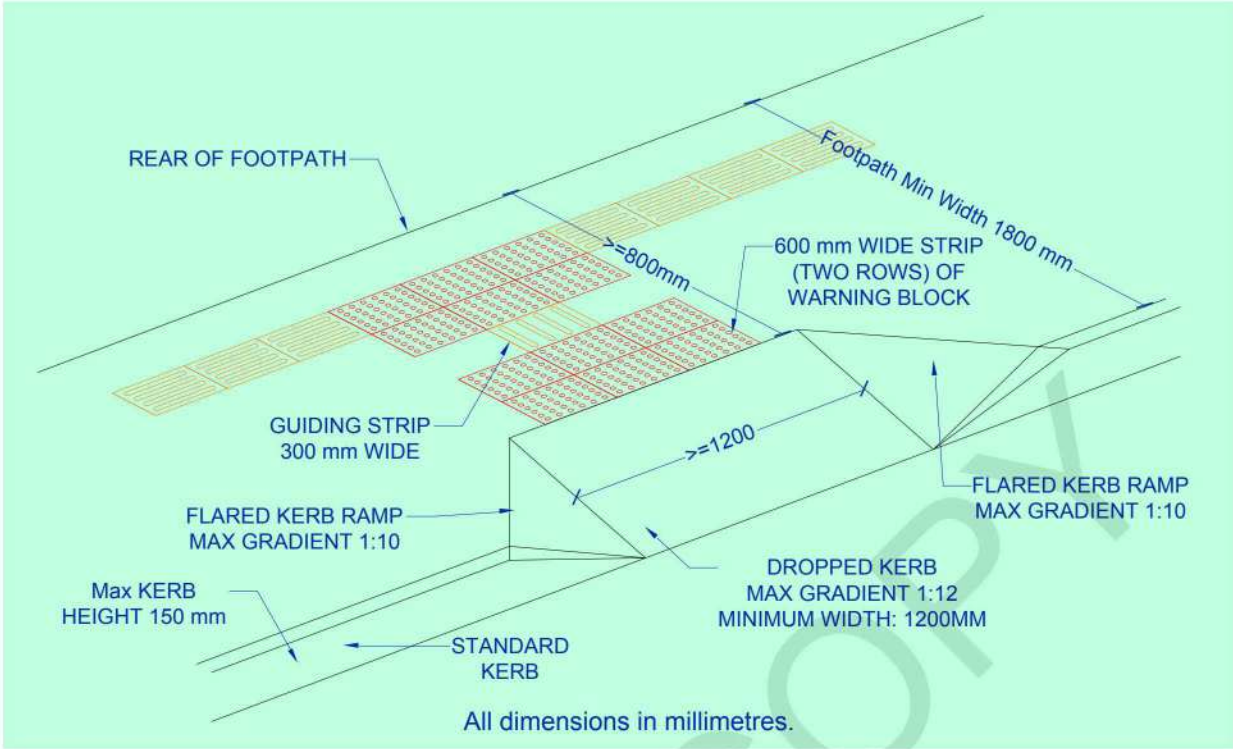


Figure 32: Kerb ramp detail at street intersection

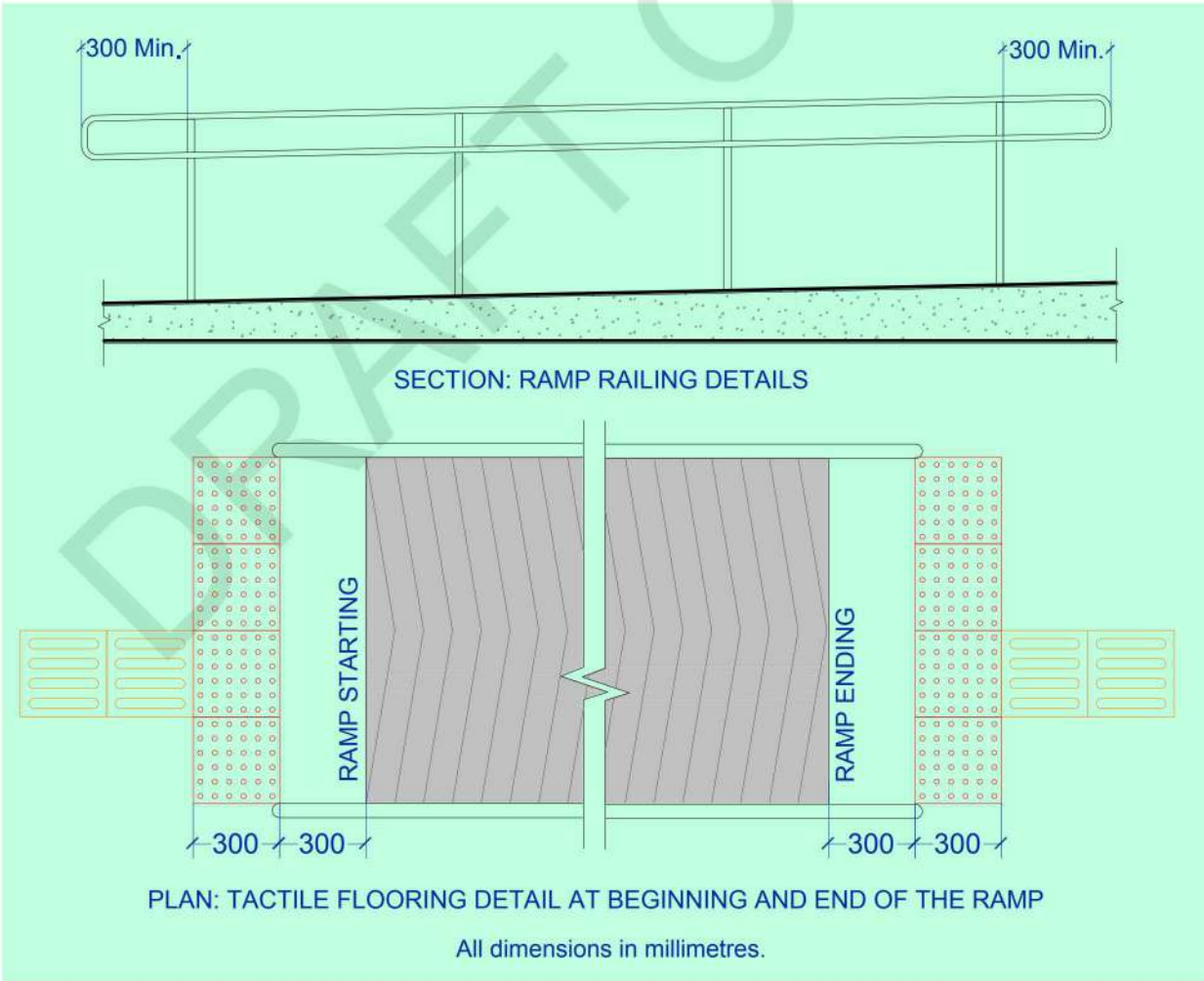


Figure 33: Handrails and tactile flooring for ramp with railing

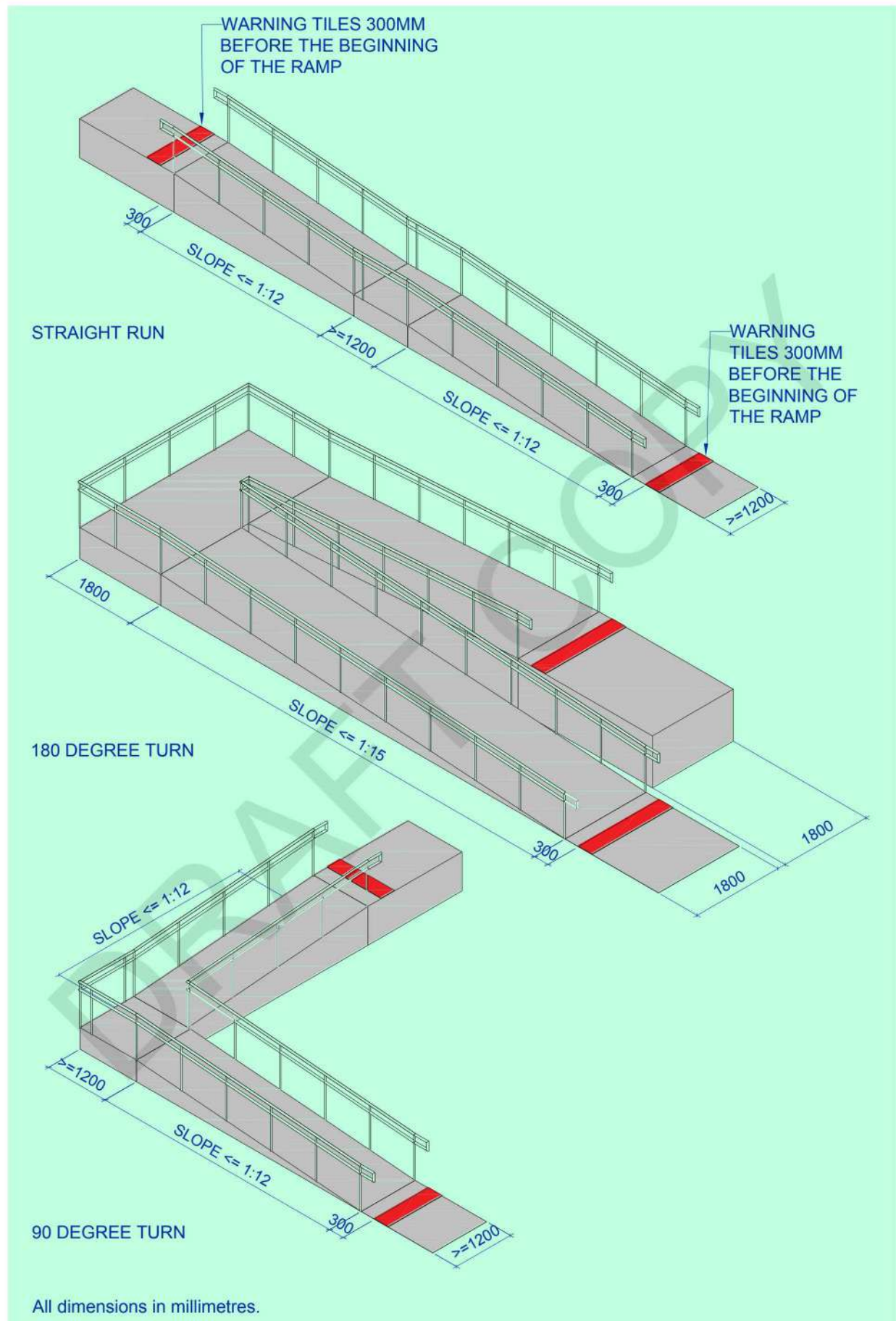


Figure 34: Examples of different types of ramps

14. Steps and Staircase

- 14.1 Regular steps of tread (width) not less than 300mm and rise (height) not more than 150mm shall be provided. [6] [7]
- 14.2 Staircase to have minimum 1500mm clear width (excluding tread mounted balustrade). [7]
- 14.3 Staircase landing shall be minimally 1200mm deep. [7] [5]
- 14.4 Colour contrasting 50mm wide grip strips (glow in the dark, retro reflective kinds) to be provided 50mm after the nosing at the edge of the tread. [7]
- 14.5 Two rows of warning blocks to be installed 300 mm before the beginning and 300 mm after the end of each flight of steps [7] [8]
- 14.6 Continuous round handrails, on both sides, at a height of 750 mm and 900mm with rounded edges at the ends as per section 15 [7]
- 14.7 Handrails shall extend horizontally not less than 300mm beyond the first and last nosing of every flight of steps and terminate into a closed end which shall turn down or return fully to end post or wall face and which shall not project into a route of travel. [7]
- 14.8 Where steps or stairs are in an accessible route, complementary ramps, lifts or escalators shall be provided [6]

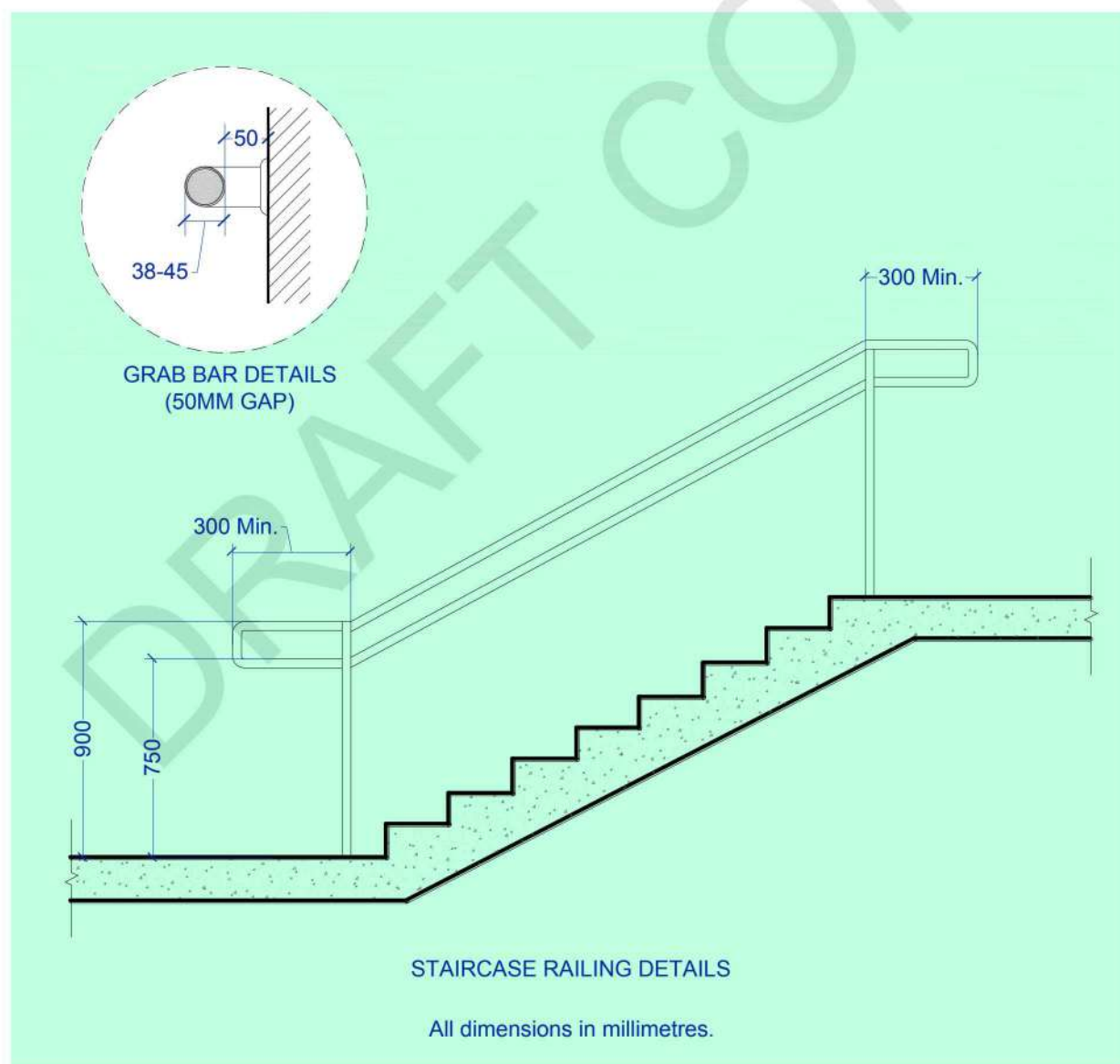


Figure 35: Handrails for steps and stairs (Source: NBC, 2016)

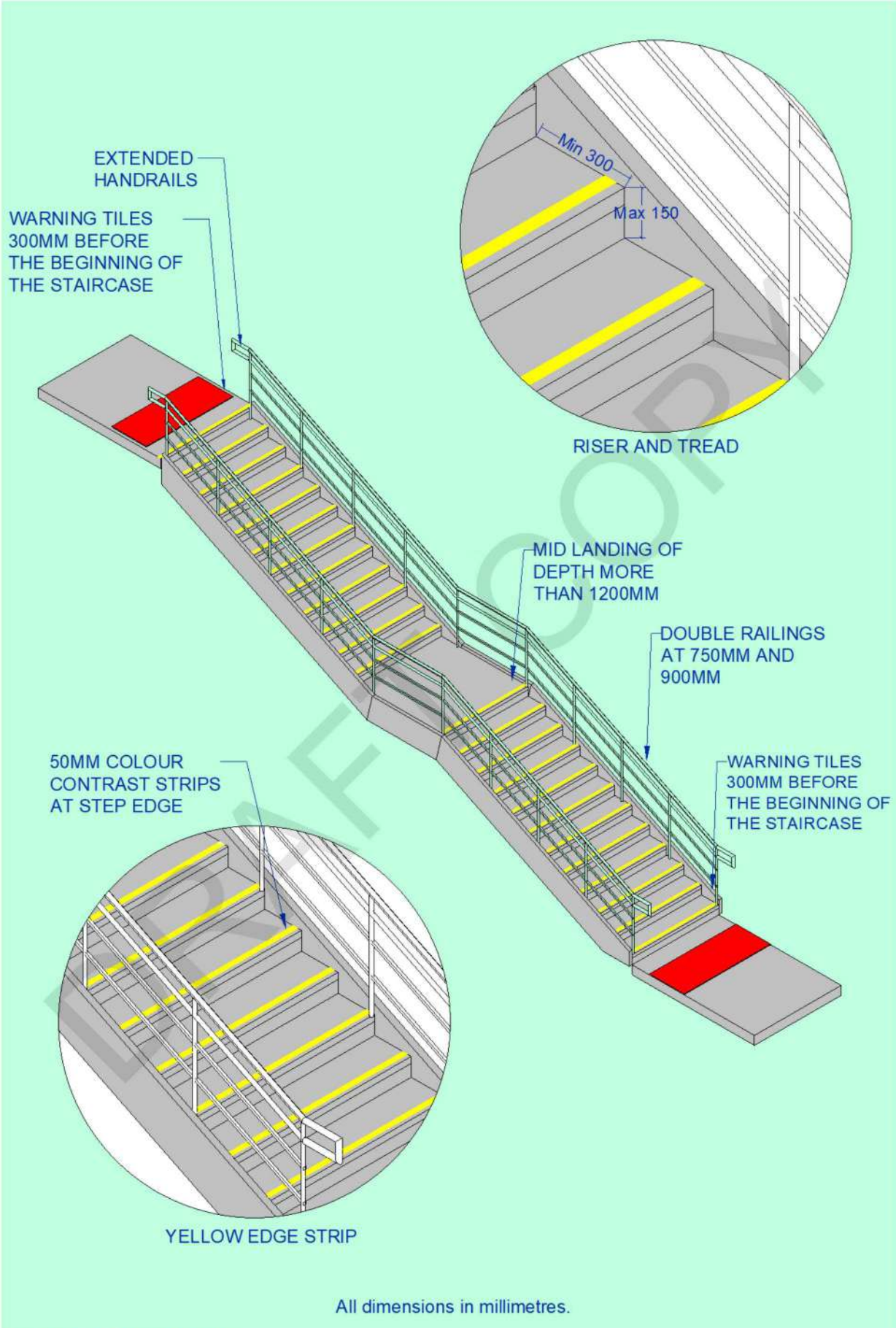


Figure 36: Staircase detail

15. Handrails

- 15.1 Continuous round handrails, on both sides, at a height of 750 mm and 900mm with rounded edges at the ends [7] [4]
- 15.2 Handrails shall be made from materials which provide good grip such as timber, nylon or powder coating, matt finish metal finishes. [4]
- 15.3 Braille indicator to be provided at both ends of the handrails (indicating the direction of movement) [8]
- 15.4 Handrails should be circular in section with a diameter of 38-45mm [6] [7] [4]
- 15.5 The fastenings and the materials shall be able to withstand a minimum point load, both vertical and horizontal of 1.7 kN. [5]
- 15.6 At least 50mm clear of the surface to which they are attached and should be supported on brackets which do not obstruct continuous hand contact with the handrail. [6] [7] [4]
- 15.7 Handrails shall extend horizontally not less than 300mm beyond the first and last nosing of every flight of steps and terminate into a closed end which shall turn down or return fully to end post or wall face and which shall not project into a route of travel. [7] [4]

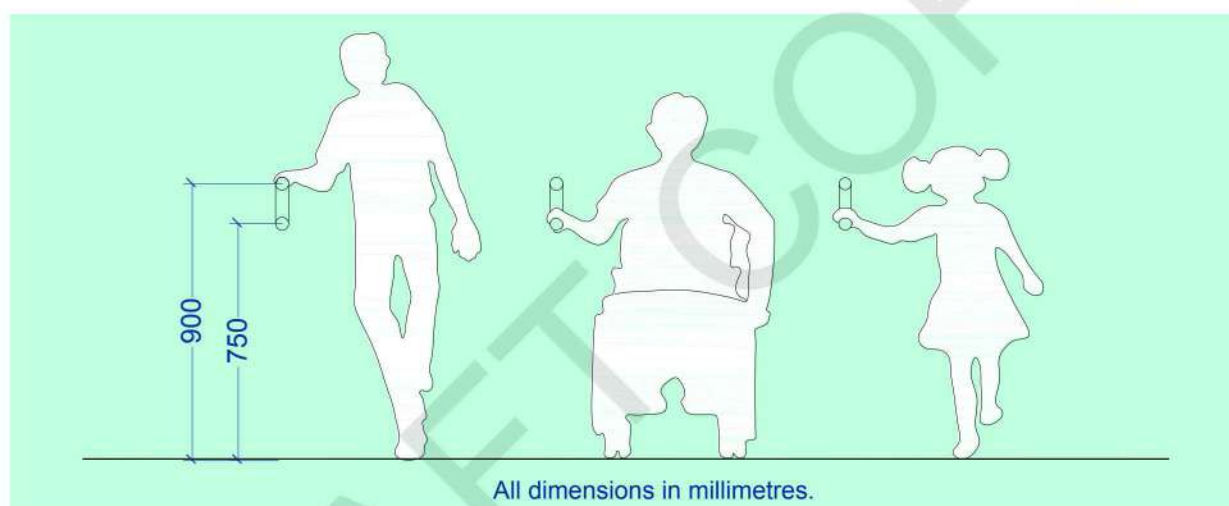


Figure 37: Handrails at two levels to help children, old people and people with short stature
(Source: NBC, 2016)

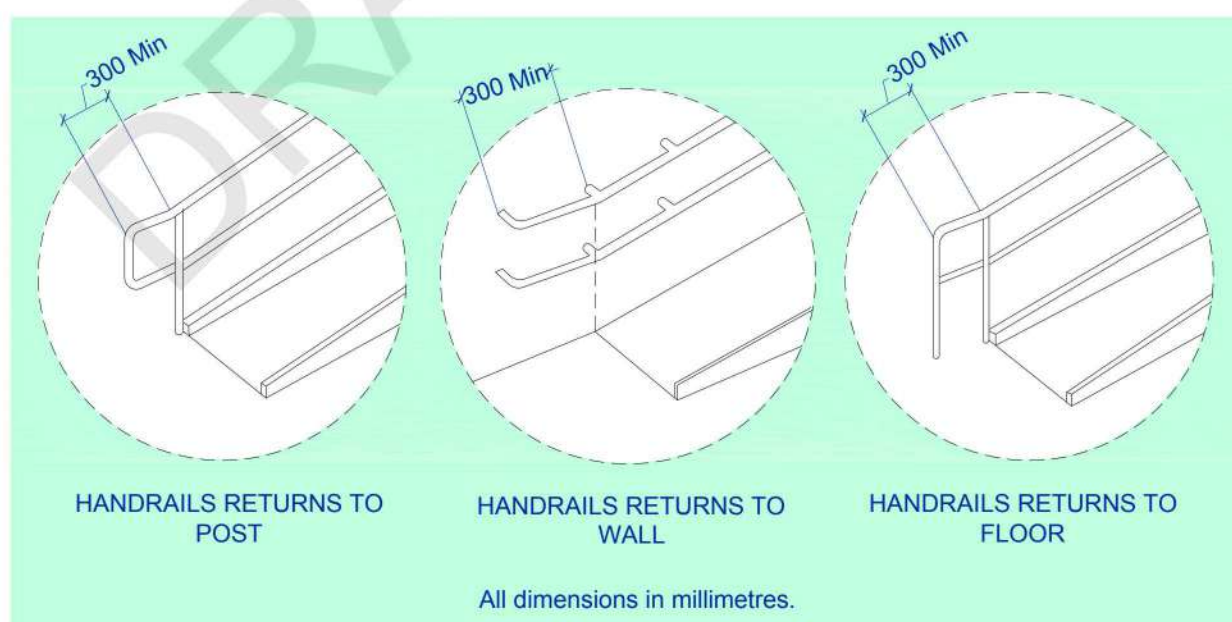


Figure 38: Typical handrail extensions (Source: NBC, 2016)



Figure 39: Braille indicators at end of the handrails (Source: https://static.wixstatic.com/media/2f4db7_eab6b34aba264b0fab6143b2c80454fb~mv2_d_3264_2448_s_4_2.jpg)

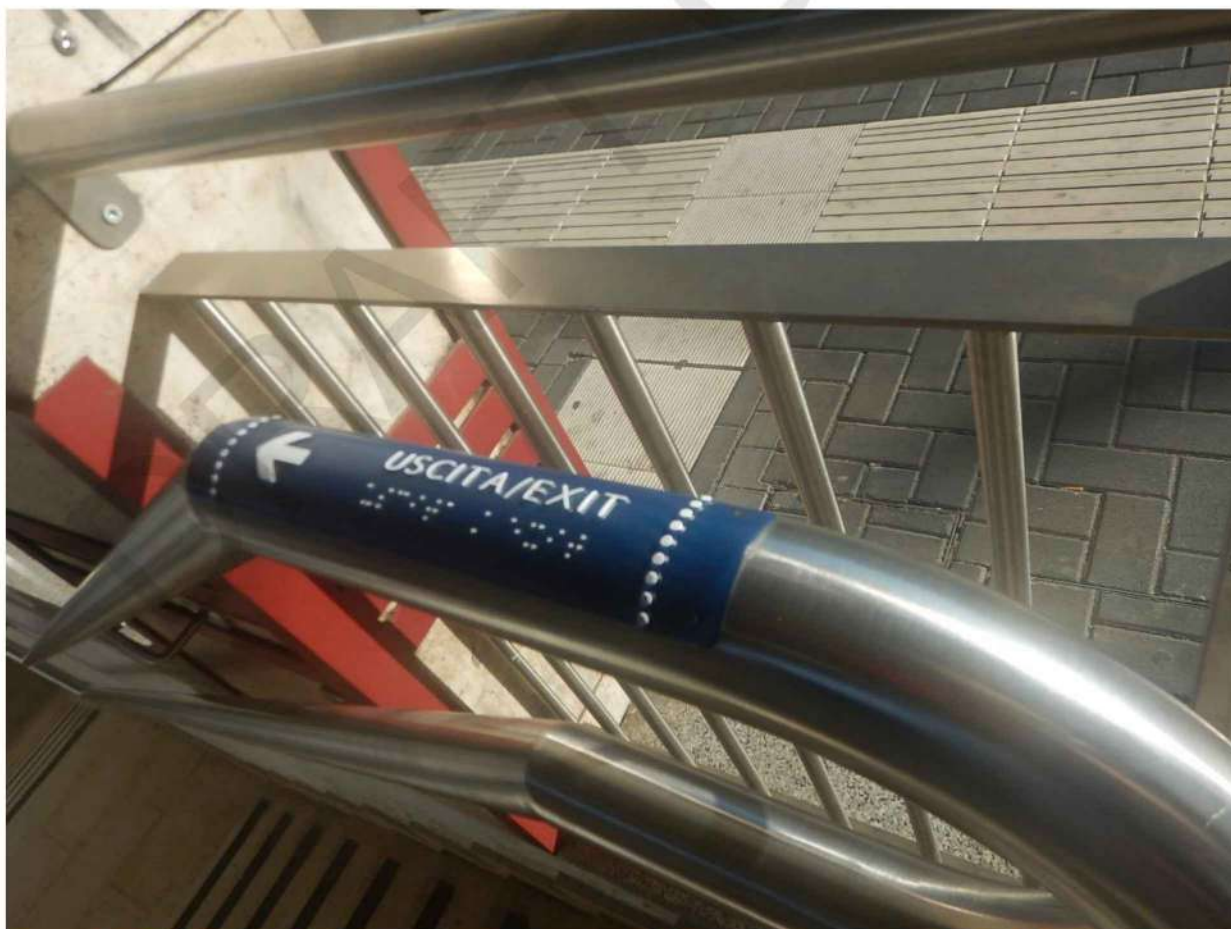


Figure 40: Tactile indicators at end of the handrails in three languages including Braille (Source: <https://anonw.files.wordpress.com/2018/06/dscn9896.jpg>)

16. Accessible Toilets

- 16.1 Two types of toilets can be provided:
- If a new construction is being done, then type A toilet shall to be given.
 - If an existing toilet is to be converted into an accessible toilet, then it shall at least have the minimum dimensions of type B toilet.
 - Type A toilet is always preferred over Type B toilet. Wherever possible, type A toilet shall be provided. Only in case of retrofitting where there isn't enough space for type A toilet should the type B considered.
- 16.2 Type A toilet (lateral transfer from both sides) requirements:
- Minimum dimensions – 2200mm x 2300mm as shown in Figure 41 [5]
 - Clear manoeuvring spaces that provides a wheelchair turning radius of 1800 mm in front of the water-closet and washbasin [5]
- 16.3 Type B toilet (lateral transfer from only one side) requirements:
- Minimum dimensions – 1700mm x 2200mm as shown in Figure 42 [5]
 - Clear manoeuvring spaces that provides a wheelchair turning radius of 1500 mm in front of the water-closet and washbasin [5]
- 16.4 General requirements for type A and type B toilet -
- Outward-opening double door/ double-swing doors/ sliding type, minimum 900mm wide and shall not require a force of more than 22N to operate. [5] [7]
 - Door handles – D-Type / Lever type (not knobs). Door locks to be designed such that people without limbs can also open them [8]
 - Difference in floor level to be less than or equal to a tile drop at the toilet entrance door (no Choukhat) [8]
 - WC top height – 450mm to 480mm. The minimum distance of the edge of the WC seat to the adjacent wall shall be 250 mm. In case of Type A toilet, the distance from the edge of the WC seat to the adjacent wall shall be minimum 900 mm on both sides to allow ease of transfer. [5]
 - Washbasin top height – 750 mm to 850mm. The space under the washbasin shall be unobstructed with a knee clearance centred on the washbasin between 680 mm and 700 mm high, and 200 mm deep. In addition, a toe clearance of at least 300 mm high shall be provided [5]
 - Grab bars/ door handles/ all fittings/ accessories/ operable items to be of contrasting colour wherever possible and to be placed at approachable height of 300mm to 1000mm from the floor and be easy to operate / adequate strength (250 kgs). [8]
 - Grab bars - On the sides where a lateral transfer is possible, a foldable grab bar (drop-down support bar) shall be provided at a height of 200 mm to 300 mm above the water-closet. Where a wall is beside the toilet, a horizontal grab bar shall be provided at a height of 200 mm to 300 mm above the water-closet, and a vertical grab bar shall exceed from the horizontal grab bar to a height of 1500-1700 mm above floor level. Alternatively, one L-shape grab bar, 600 mm long horizontal and 700-900 mm long vertical shall be mounted on the side wall closest to the water-closet (Figure 43) [5]
 - Anti – skid flooring [8]
 - Height of latch- at base (foot operable/non-protruding) and mid height (750-800mm) [8]
 - Long/ lever handles of taps [8]
 - Emergency buttons with pull-chain switch to be provided in the toilet, one on three walls as shown in Figure 41 and Figure 42. Emergency bell alert to be given to housekeeping. Training to be given to them to handle PWDs carefully. [8]
 - Signage (Figure 61) to be provided above and on the side of the door (at 1200mm). [8]

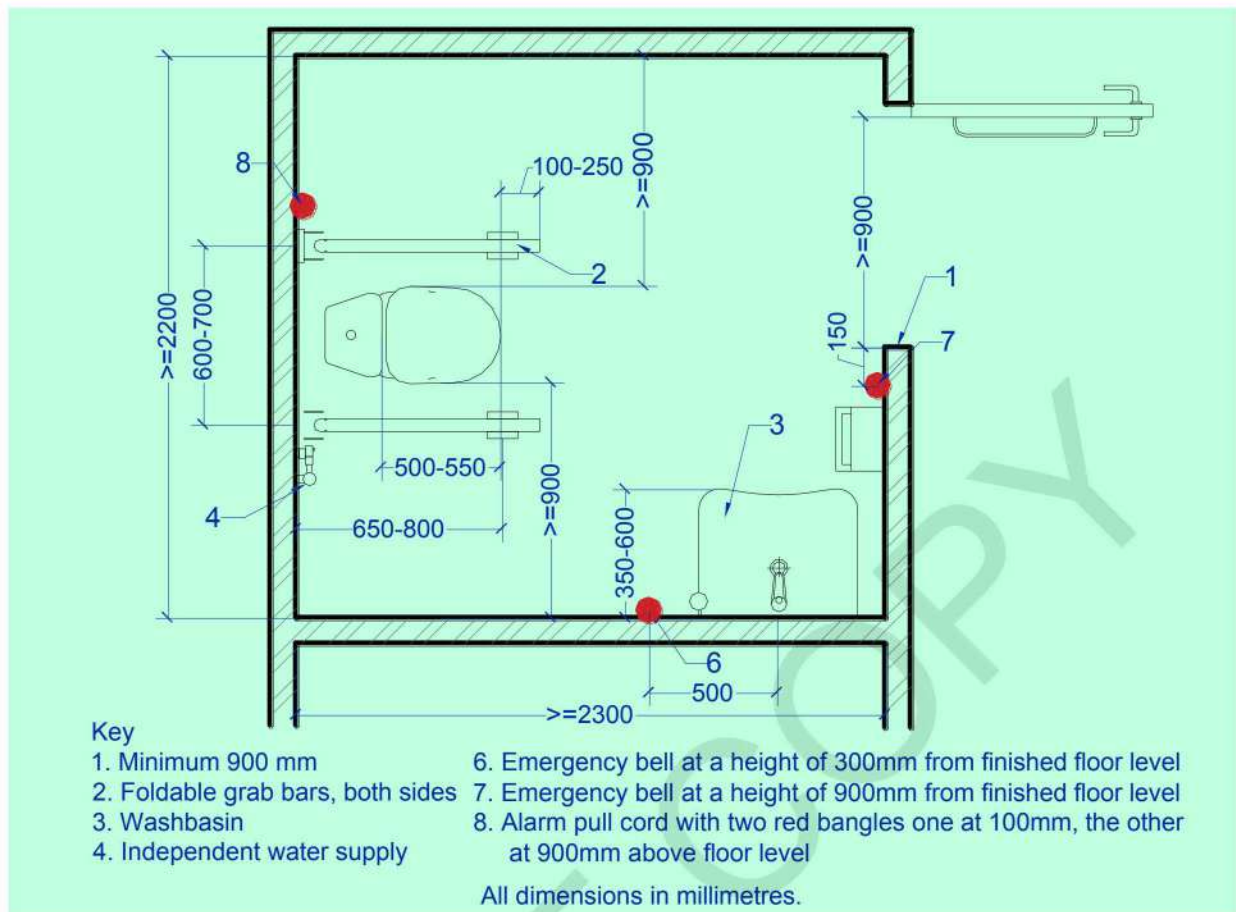


Figure 41: Example of Type A Toilet Room - Lateral Transfer from both sides

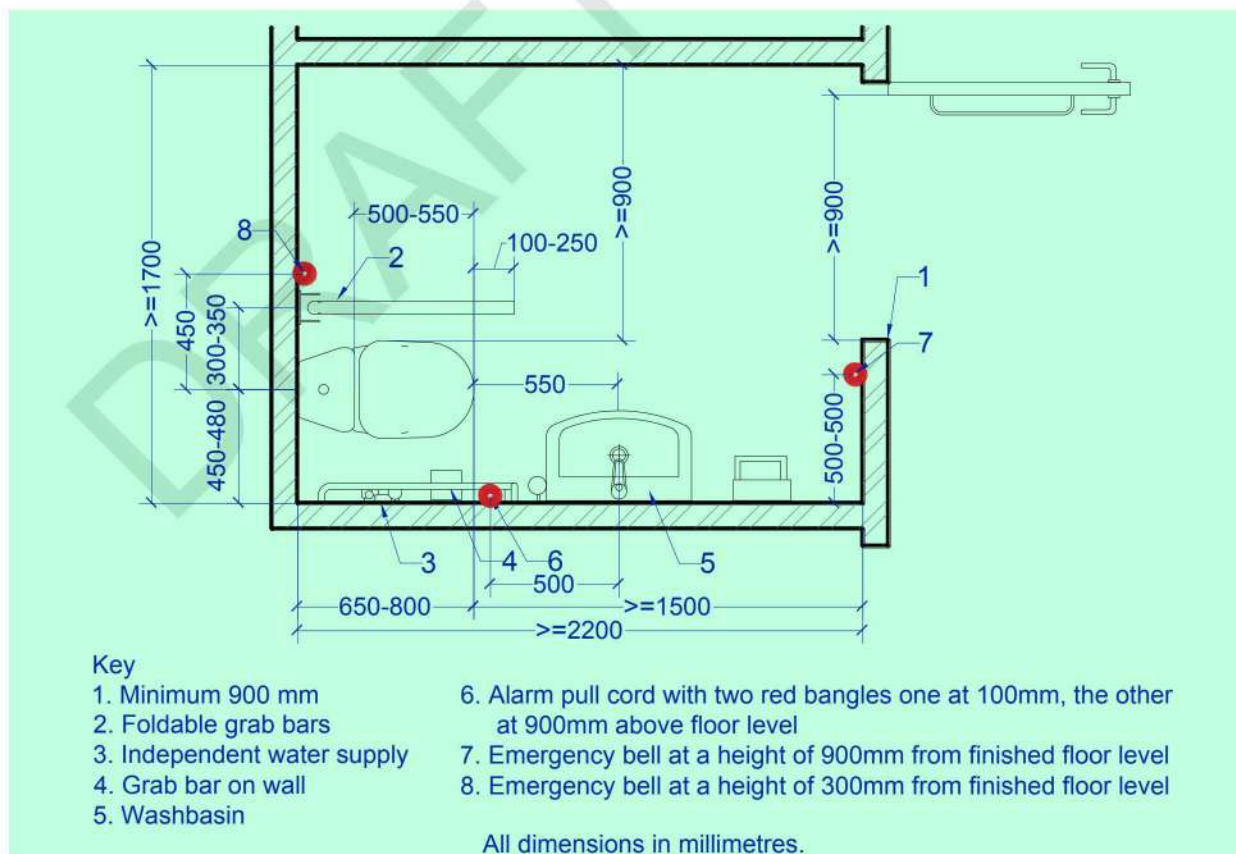


Figure 42: Example of Type B corner toilet - Lateral transfer from one side only

16.5 Accessible toilets of type A or type B should be provided in lounges as well. It includes the lounges maintained by private concessioners

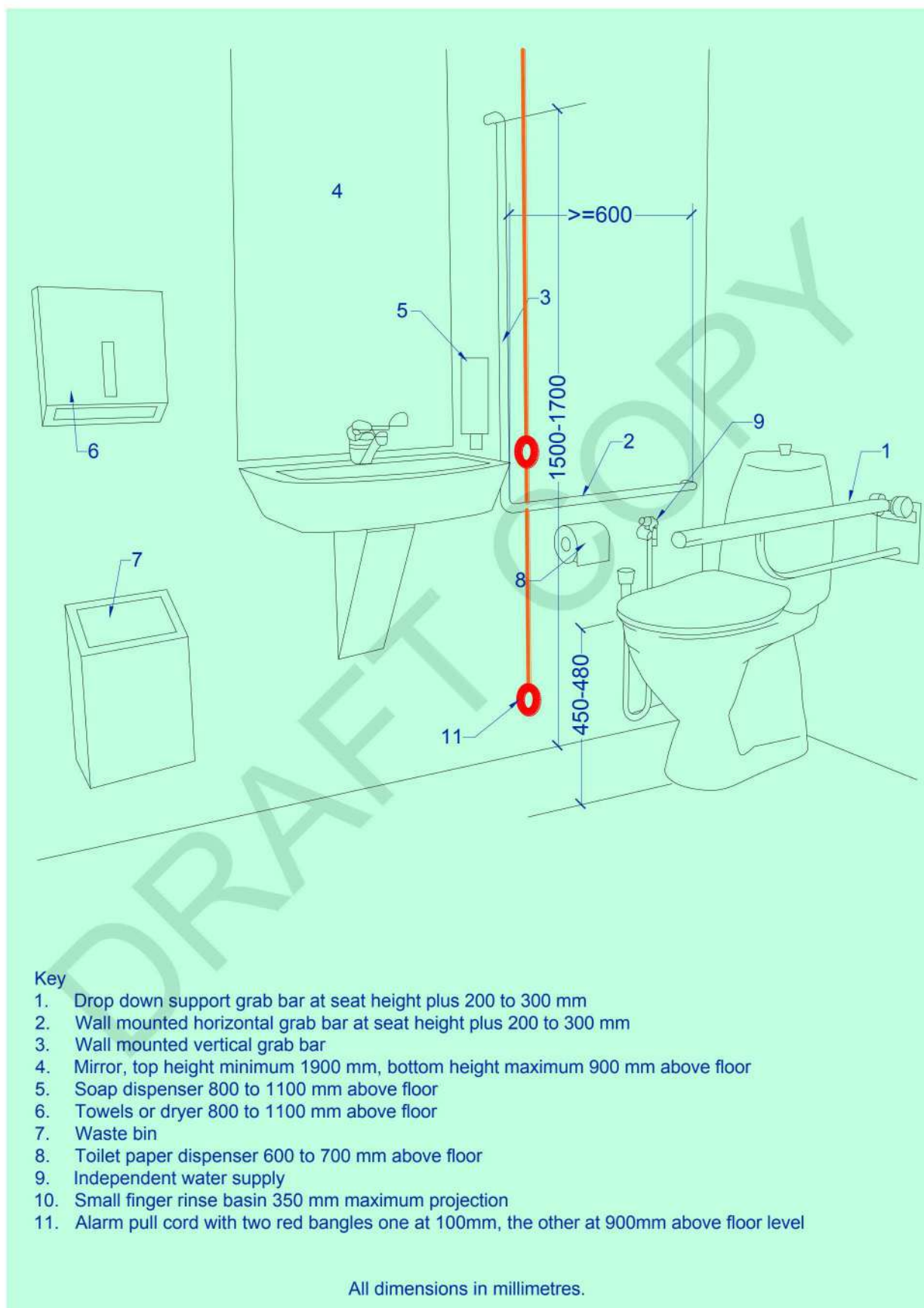


Figure 43: Positioning accessories in Type B toilet

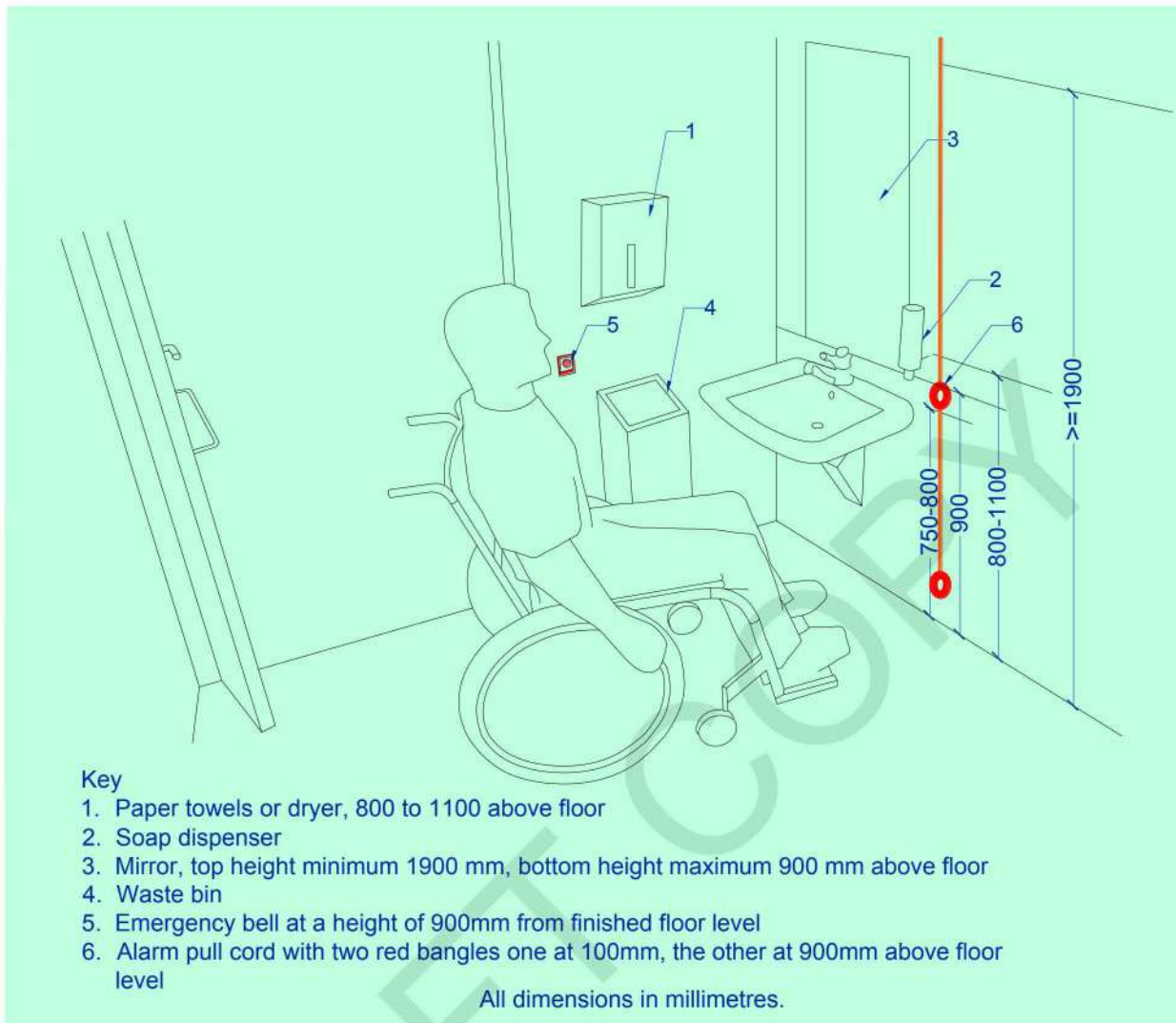


Figure 44: Placement of washbasin and mirror with distances of sanitary appliances

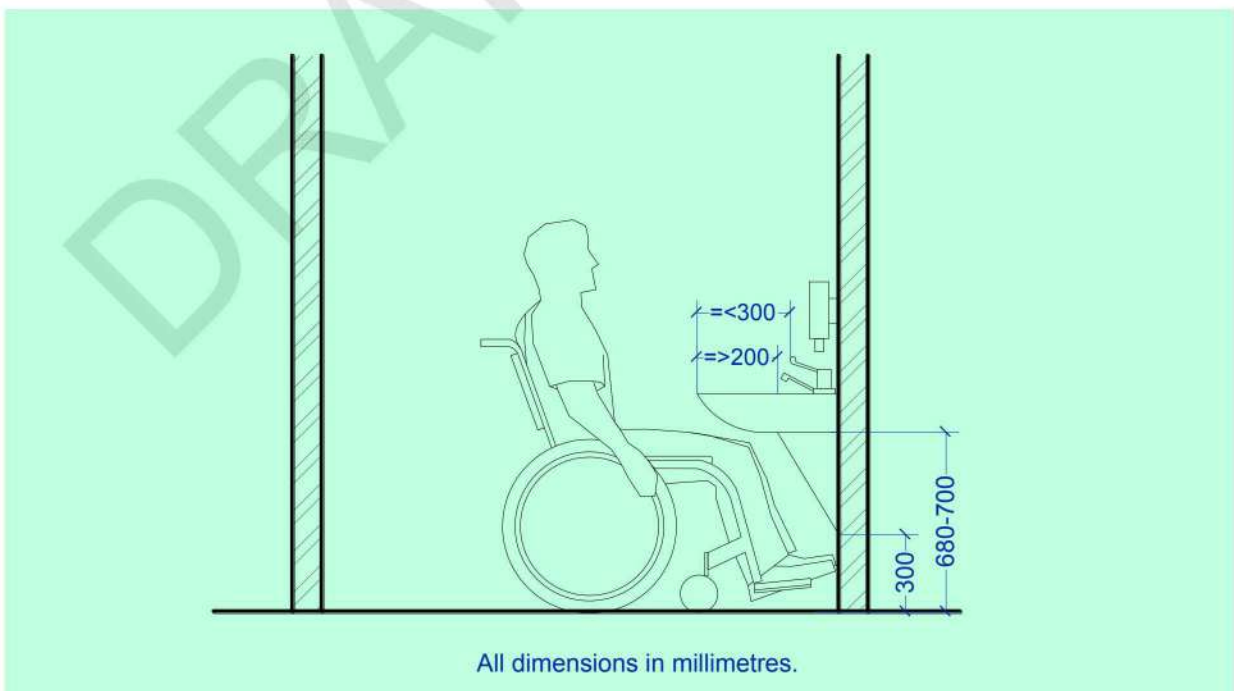


Figure 45: Section showing washbasin with toe and knee clearance (Source: NBC, 2016)



Figure 46: Example of lever type tap, foldable grab bars, etc. in accessible toilet type A (Source: <https://www.ableamsterdam.com/wp-content/uploads/2019/06/accessible-toilets-2-1024x662.jpg>)



Figure 47: Example of type B toilet with emergency alarm pull chord at two levels (Source: <https://www.disabilityaids.co.nz/wp-content/uploads/WC-Suites.jpg>)

17. Accessible Drinking Water Facility

- 17.1 The provision of two drinking facilities at different heights is very convenient for standing adults, people in wheelchairs and children. Where only one counter is provided, it shall be at a height of 700 mm above floor level [5]
- 17.2 Spout heights shall be between 800-900 mm [5]
- 17.3 Water units shall have a clear space of 900mm X 1200mm [8] [5]
- 17.4 The front edge of the unit shall extend 430-480 mm from the wall. It shall have a clear **knee space** between the bottom of the apron/ equipment and floor or ground of at least 900 mm wide, 200 mm deep extending from the front edge of the equipment and 700 mm high. [5]
- 17.5 It shall have a **toe space** not less than 900 mm wide, 300 mm high, extending from the back wall to a maximum of 150 mm. [5]
- 17.6 Lever type tap systems (at two levels) with easy to use systems to be used
- 17.7 Non-skid surface with proper drainage shall be created
- 17.8 Fountain type taps can also be given
- 17.9 Drainage near the area must be covered to avoid people falling/ getting leg stuck in it.

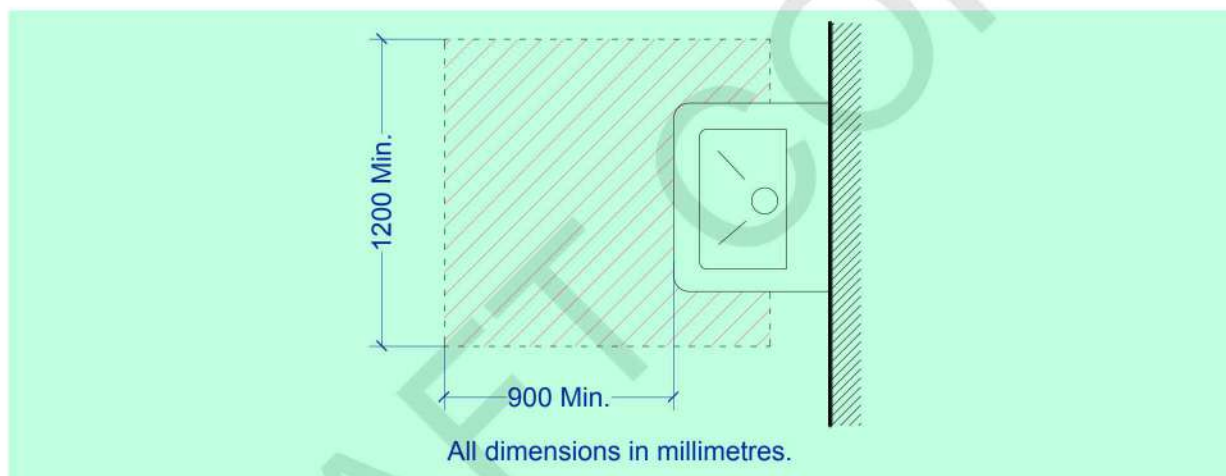


Figure 48: Clear floor space for freestanding or built-in drinking water unit not having clear space under the unit (Source: NBC, 2016)

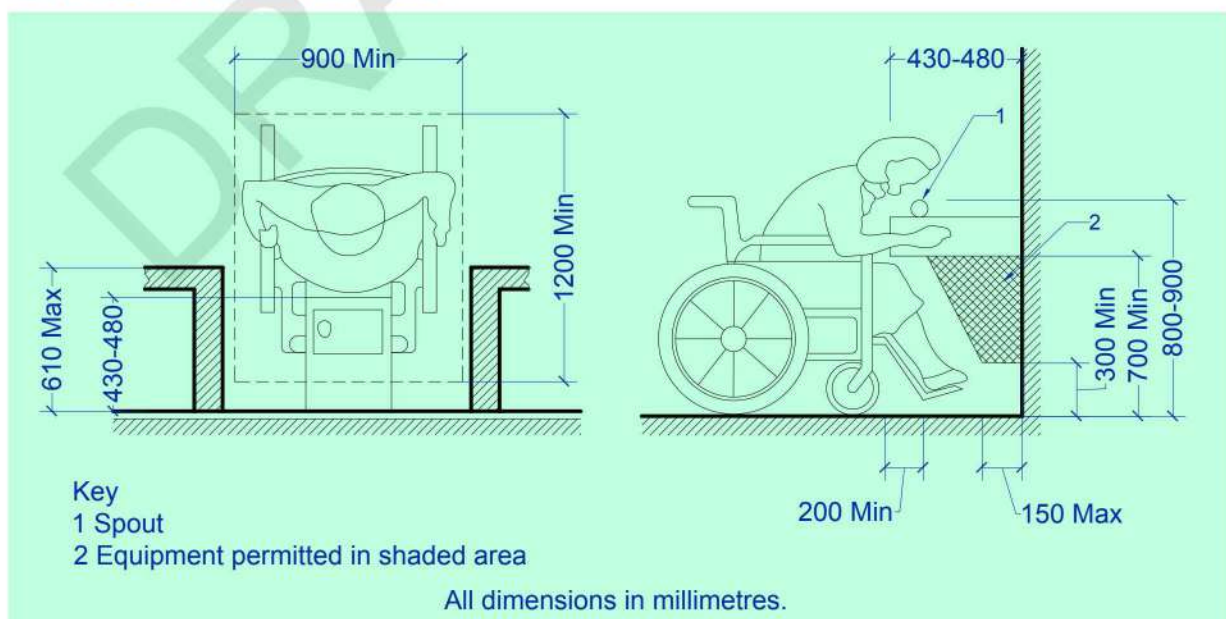


Figure 49: Wall-mounted drinking water unit details (Source: NBC, 2016)

18. Service Animal/Pet Relief Area (SARA)

- 18.1 Number - Must be located on an accessible route to each terminal. One relief area may serve two or more terminals if travel to and from it meets reasonable transit times as defined in paragraph 18.2. [10]
- 18.2 Transit time - No more than 15 minutes from any gate, based on a walking pace of 200ft/min. Includes expected time spent using transportation vehicles and waiting time for an escort, wheelchair, or elevators [10]
- 18.3 Size and shape - May be of any shape, but must be designed to accommodate a person using a wheelchair handling a service animal on a 1.8 m (six-foot) leash. In busier locations, a relief area may be sized to accommodate more than one service animal at one time. [10]
- 18.4 Surfaces. A relief area should have at least two different surfaces:
- a) One hard and located immediately inside the entrance to allow wheelchair access. This surface should be delineated in a manner to indicate the portion intended to be traversed by people, and the portion intended for animal relief.
 - b) The other an appropriate softer surface, such as gravel or mulch for outdoor areas, and artificial turf specially designed as an animal relief surface, treated to inhibit the spread of disease, for indoor (and outdoor) areas. [10]
- 18.5 Fencing or another suitable barrier, with an accessible gate/entrance, adequate to contain service animals must be provided. [10]
- 18.6 Plumbing:
- a) The SARA must include a sink with a faucet for hand washing. Water must be potable as a drinking water supply for animals.
 - b) The surface must be constructed with adequate drainage to facilitate regular cleaning.
 - c) A separate water supply must be included for use in cleaning the surface. [10]
- 18.7 Location:
- a) Where it is not feasible to establish an outdoor relief area within the sterile area, the relief area will have to be constructed indoors. It can be located near an existing block so that plumbing services are simplified.
 - b) SARA must not be co-located with a designated smoking area. [10]
- 18.8 Weather protection:
- a) Outdoor SARA must include weather protection from sun and precipitation.
 - b) If the SARA is close to operating aircraft, protection from jet blast and prop wash must be provided. [10]
- 18.9 Scent - The sense of smell is much more acute in animals than in humans. This can be a help or a hindrance in encouraging service animals to use a relief area. Pheromone-scented surfaces or devices can be beneficial, while disinfecting chemicals with strong odors can be detrimental. [10]
- 18.10 Accessories - The SARA, at a minimum, must include:
- a) A three-dimensional device (e.g. rock or fake fire hydrant) to encourage urination by male dogs to be placed in one of the corners on the soft surface.
 - b) Animal waste bags.
 - c) A waste receptacle. [10]
- 18.11 Signage to be provided above the entrance of SARA and adjacent to the side of doors as shown in Figure 63

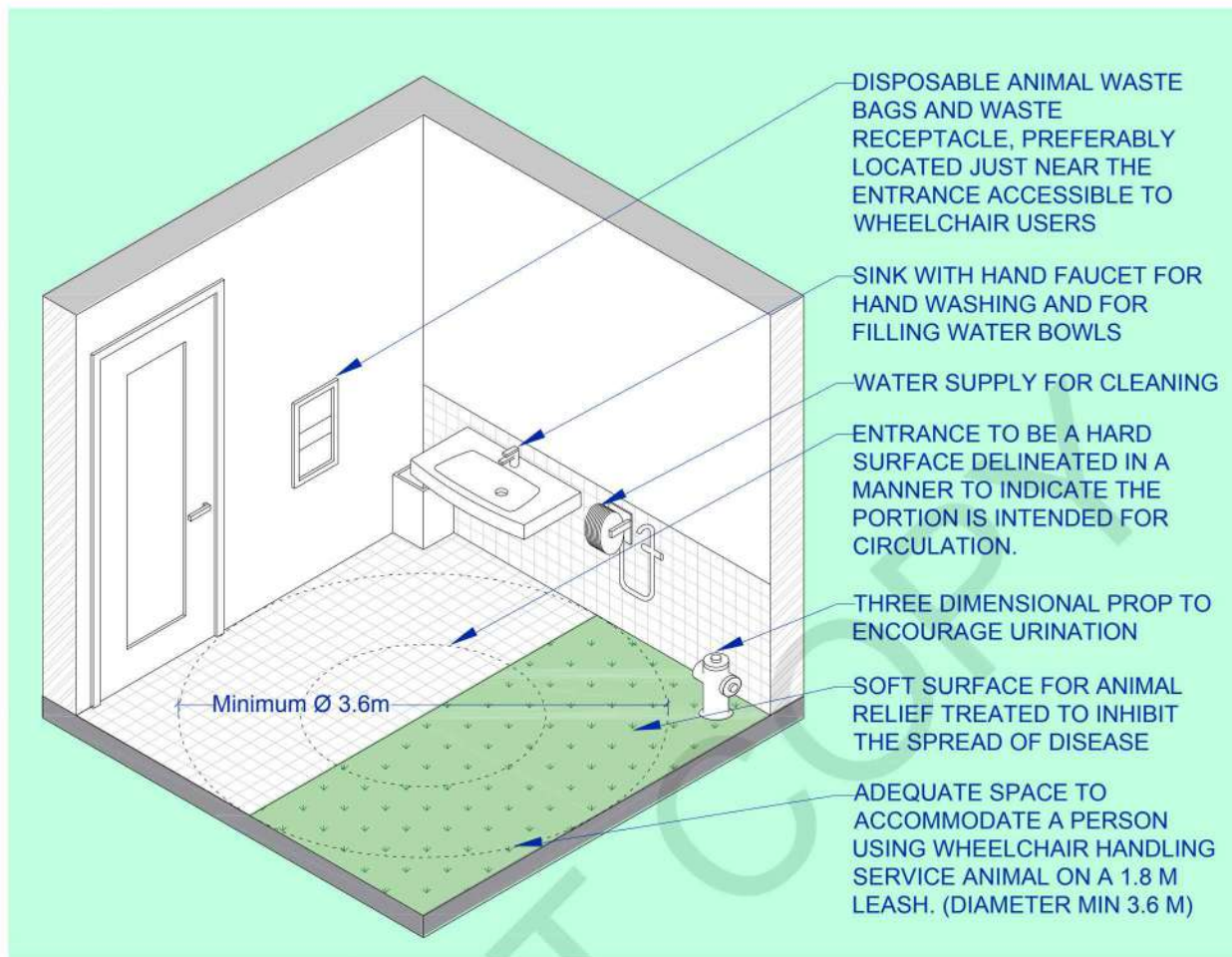


Figure 50: Details of Service Animal/Pet Relief Area



Figure 51: SARA at Hartfield Jackson Atlanta Airport (Source: <https://thecakeboutiquect.com/>)



Figure 52: SARA at St. Louis Lambert International Airport
(Source: https://petfriendlytravel.com/pft_airports/st-louis-lambert-international-airport-stl-pet-relief-areas/)

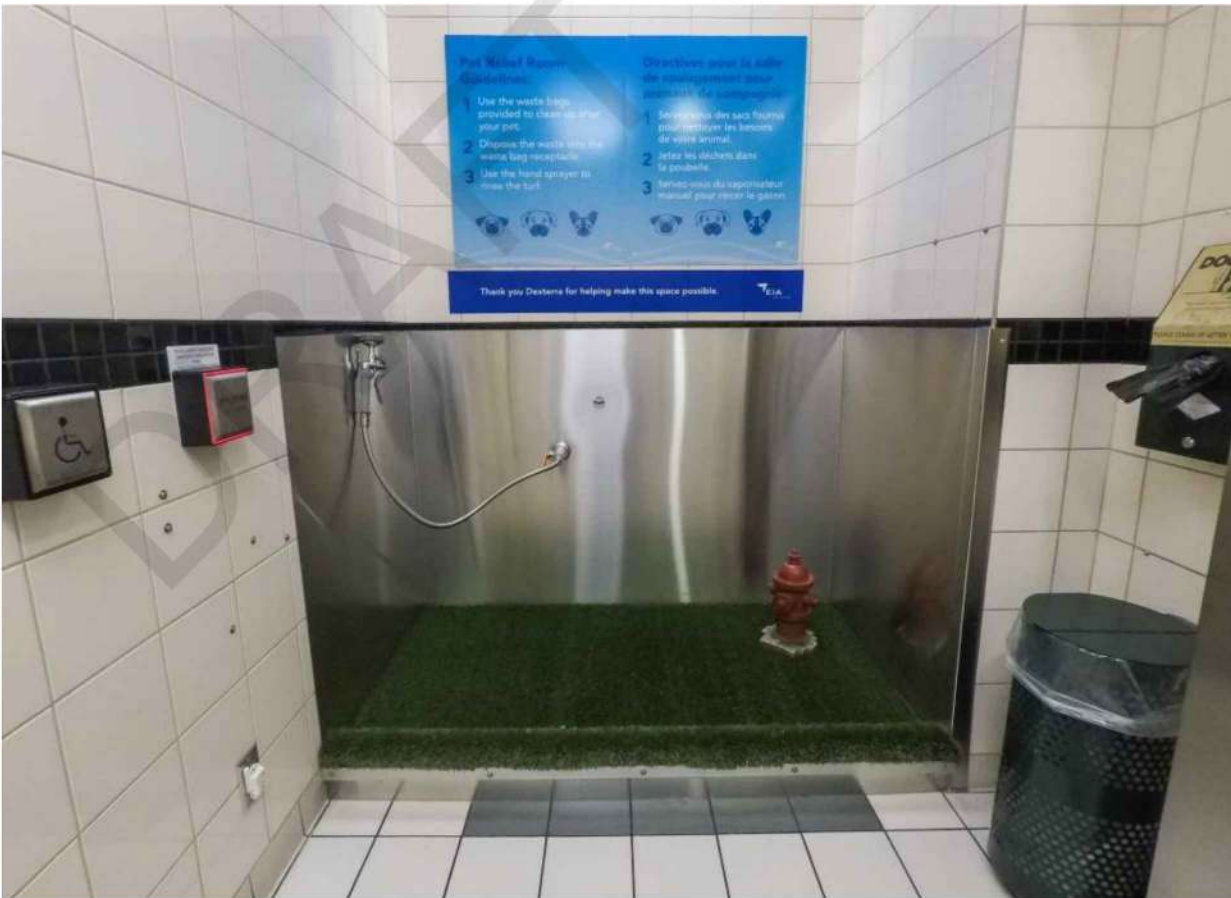


Figure 53: SARA at Edmonton International Airport
(Source: <https://flyeia.com/services/travelling-with-pets/>)

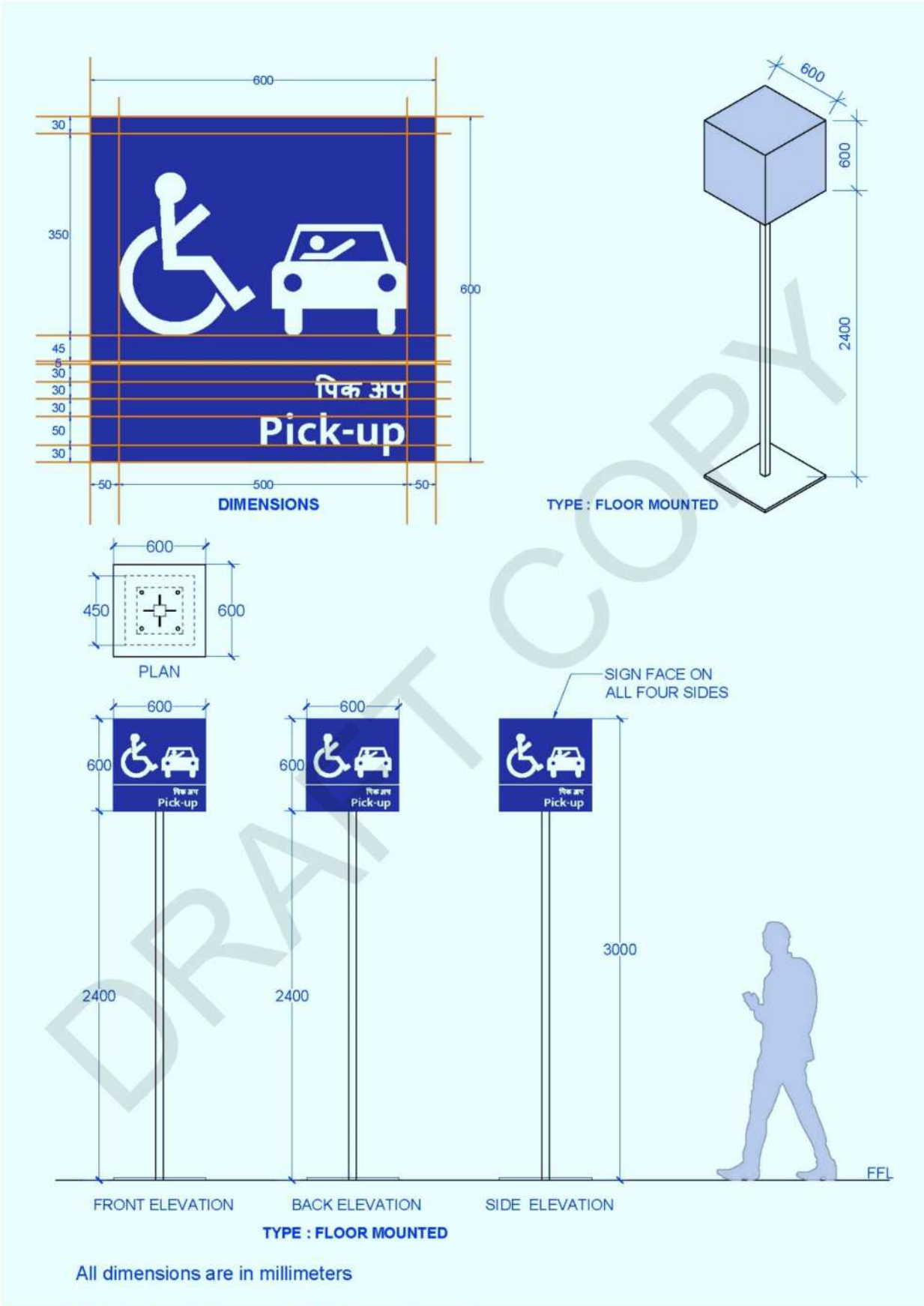
19. Signage

- 19.1 Universally usable components must be kept in mind to make signage. [8]
- 19.2 In order to standardize the signs, signage details have been given in this chapter in line with 'Wayfinding Signage Design, AAI – Sign Design Guideline Document' with a few deviations.
- 19.3 Signage shall have contrasting colours as given below
- Internal signs:
 - Primary signs: Black (pantone black C) background with yellow (yellow C) text [11]
 - Secondary signs: Black (pantone black C) background with cyan (cyan 311C) text [11]
 - External signs:
 - Along the Kerb: Blue (RAL 5013) background with White (typeface white) text.
 - Road Signs: Blue (RAL 5013) background with White (typeface white) text. [11]
- 19.4 Ekmukta font to be used for English and Hindi text. [11]
- 19.5 Character, Content and Layout shall be simple and eye-catching. [8]
- 19.6 Positioning and Viewing Distance to be kept in mind while placing the signage [8]
- 19.7 Signage to be well lit. [8]
- 19.8 Material and surface finish to follow the existing standards being used for the signage at the airport.
- 19.9 Alternative formats etc. embossed letters with Braille (Audio / Visual information, Maps and models) to be provided wherever possible. [8]
- 19.10 Where ever Braille signage are given, the signage needs to be in three languages - Hindi, English and the local language and accessible for a person walking with the help of a guiding stick.
- 19.11 Standard drawings for the following signage have been given in this chapter:
- Accessible Parking (Figure 55)
 - Pick up area (Figure 56)
 - Drop of area (Figure 57)
 - Accessible telephone booth (Figure 58)
 - Accessible ramp (Figure 59)
 - Airport Help (Reception Desk) (Figure 60)
 - Accessible toilet (Figure 61)
 - Accessible Lift (Figure 62)
 - Service Animal/ Pet Relief Area (Figure 63)



Figure 54: Example of colours to be used for Signage (Source: AAI - Sign Design Guideline Document, 2017)





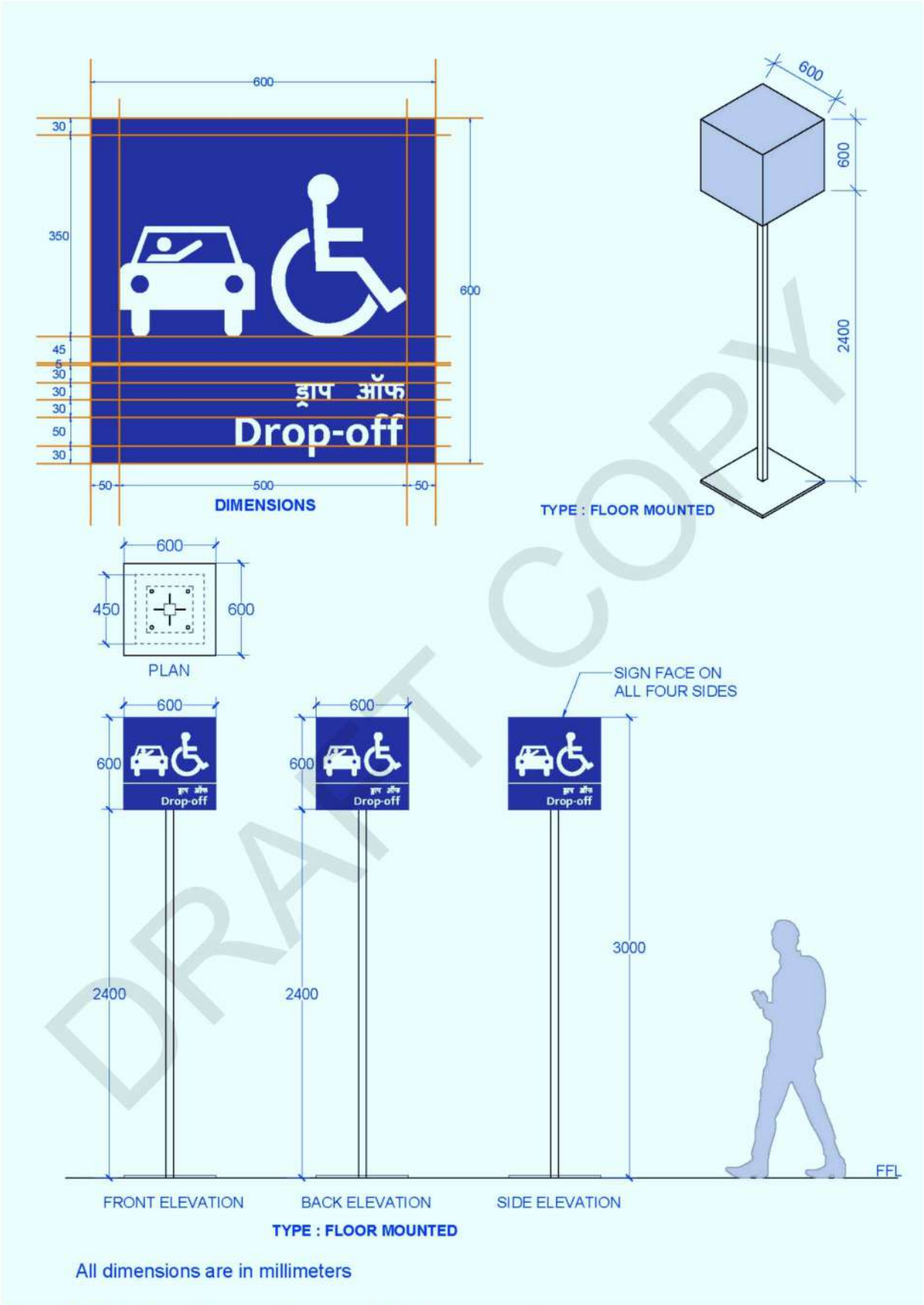


Figure 57: Details of signage for drop-off point at arrival

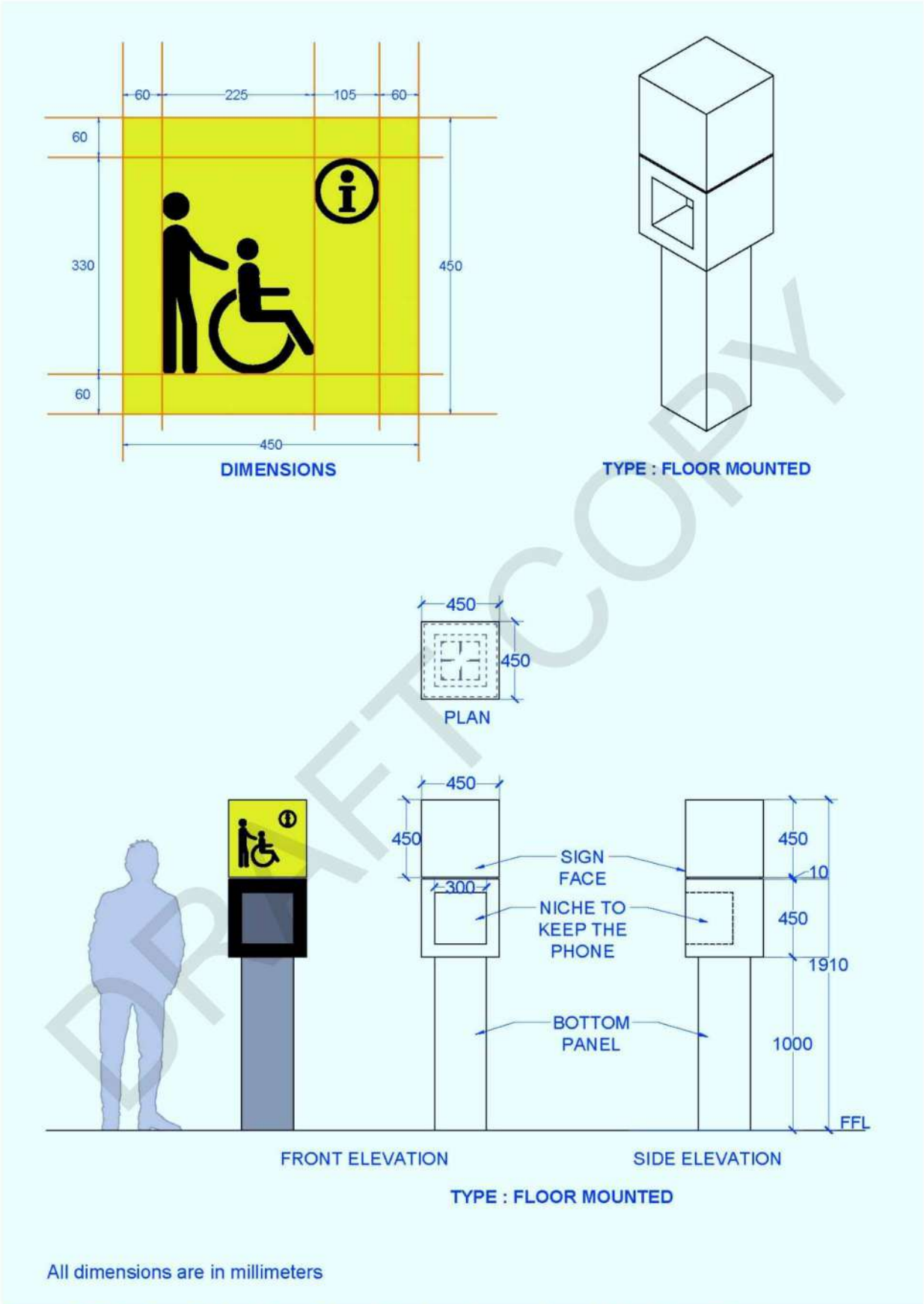


Figure 58: Details of Helpdesk call booth (to be given on city-side kerb) and its signage

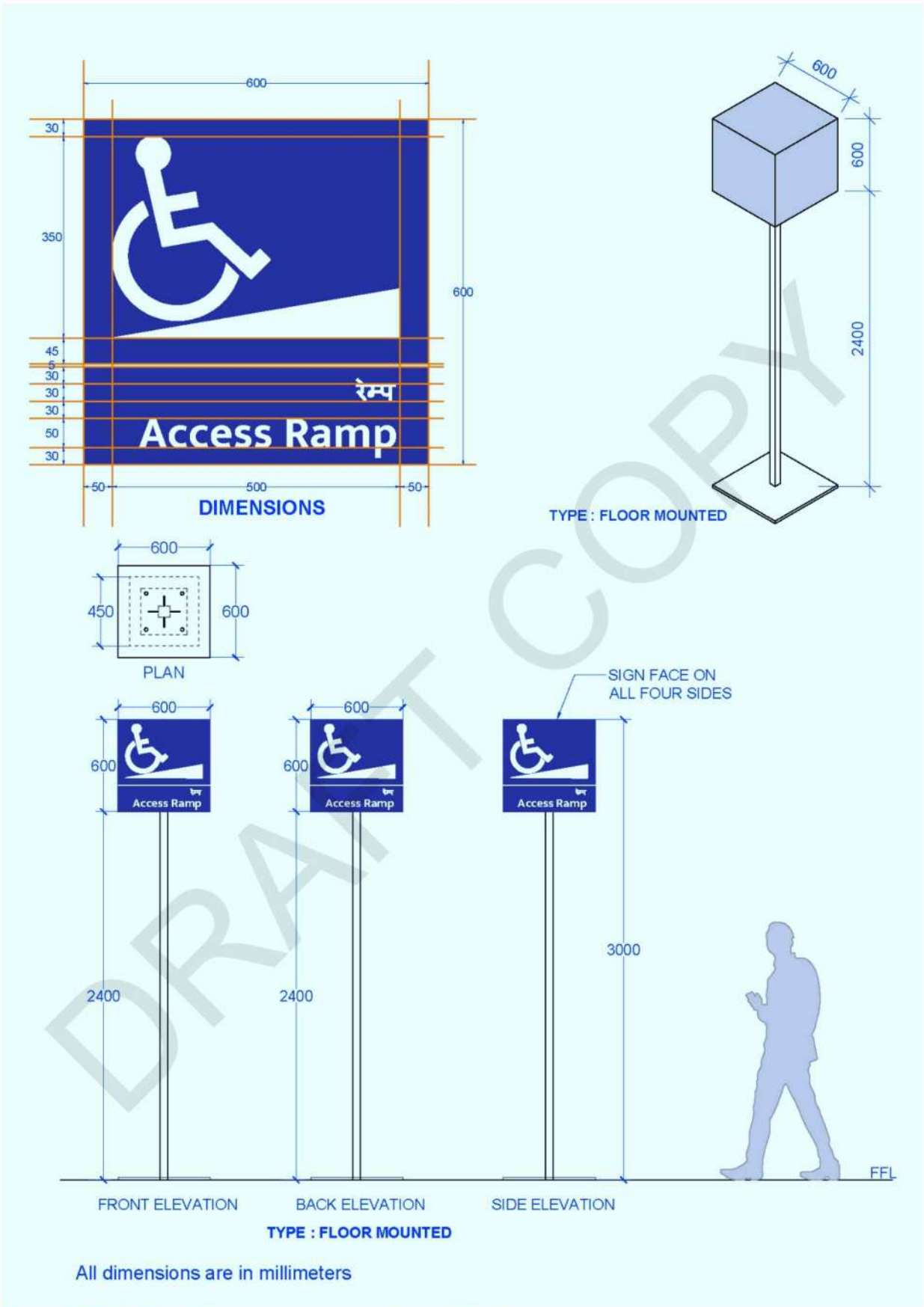


Figure 59: Details of signage near ramp along the kerb

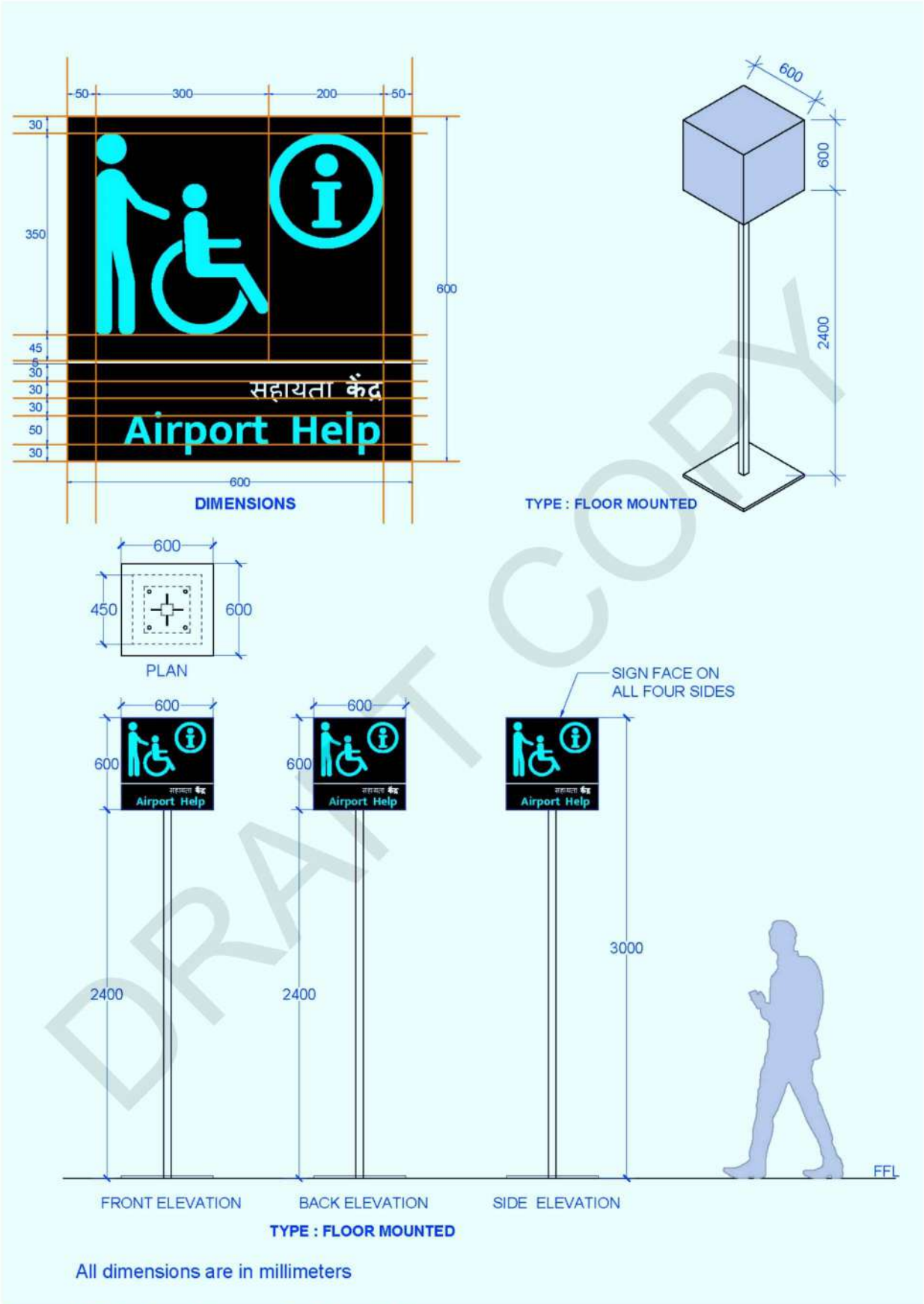




Figure 61: Details of signage for unisex accessible toilet

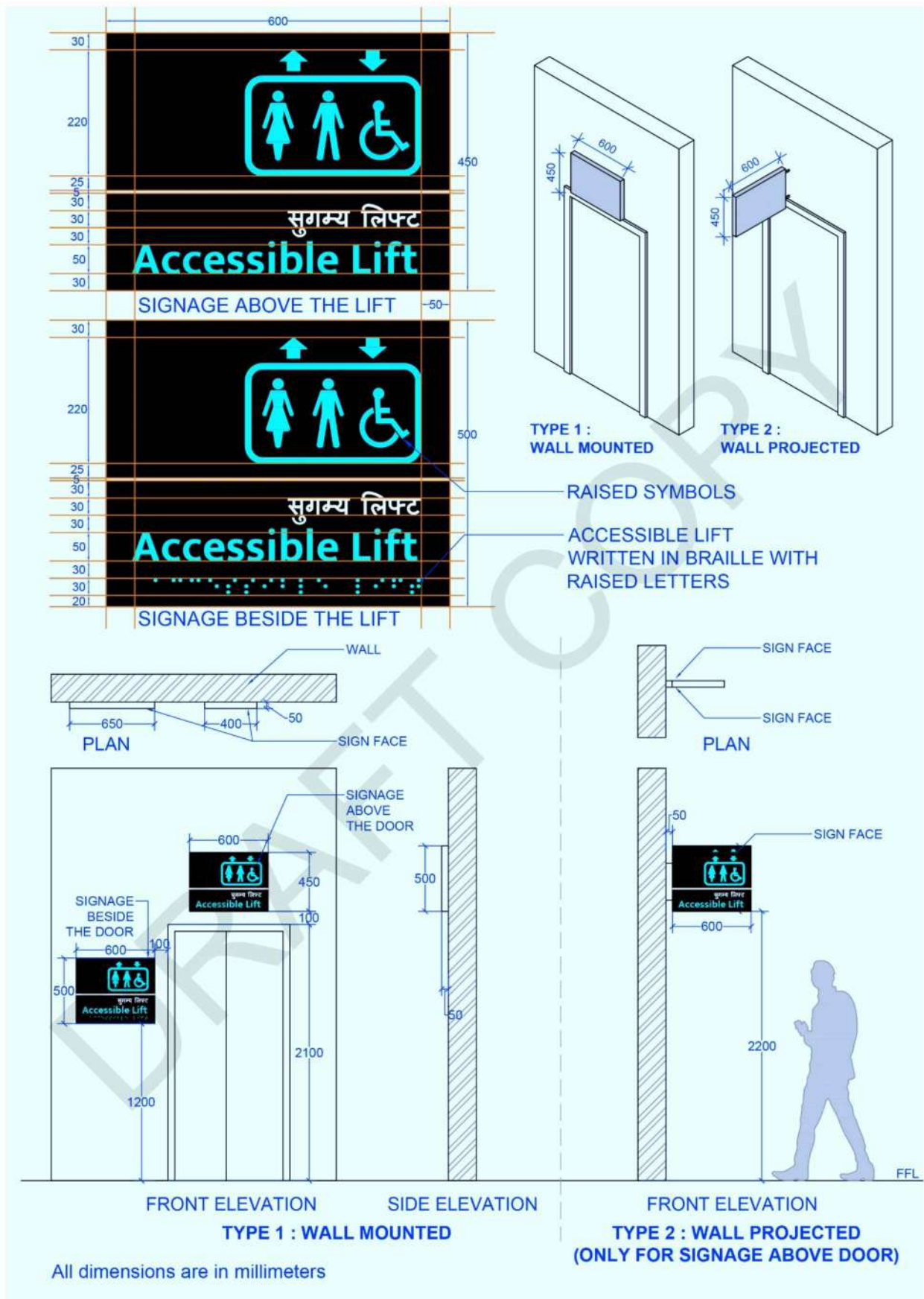


Figure 62: Details of signage for accessible lift

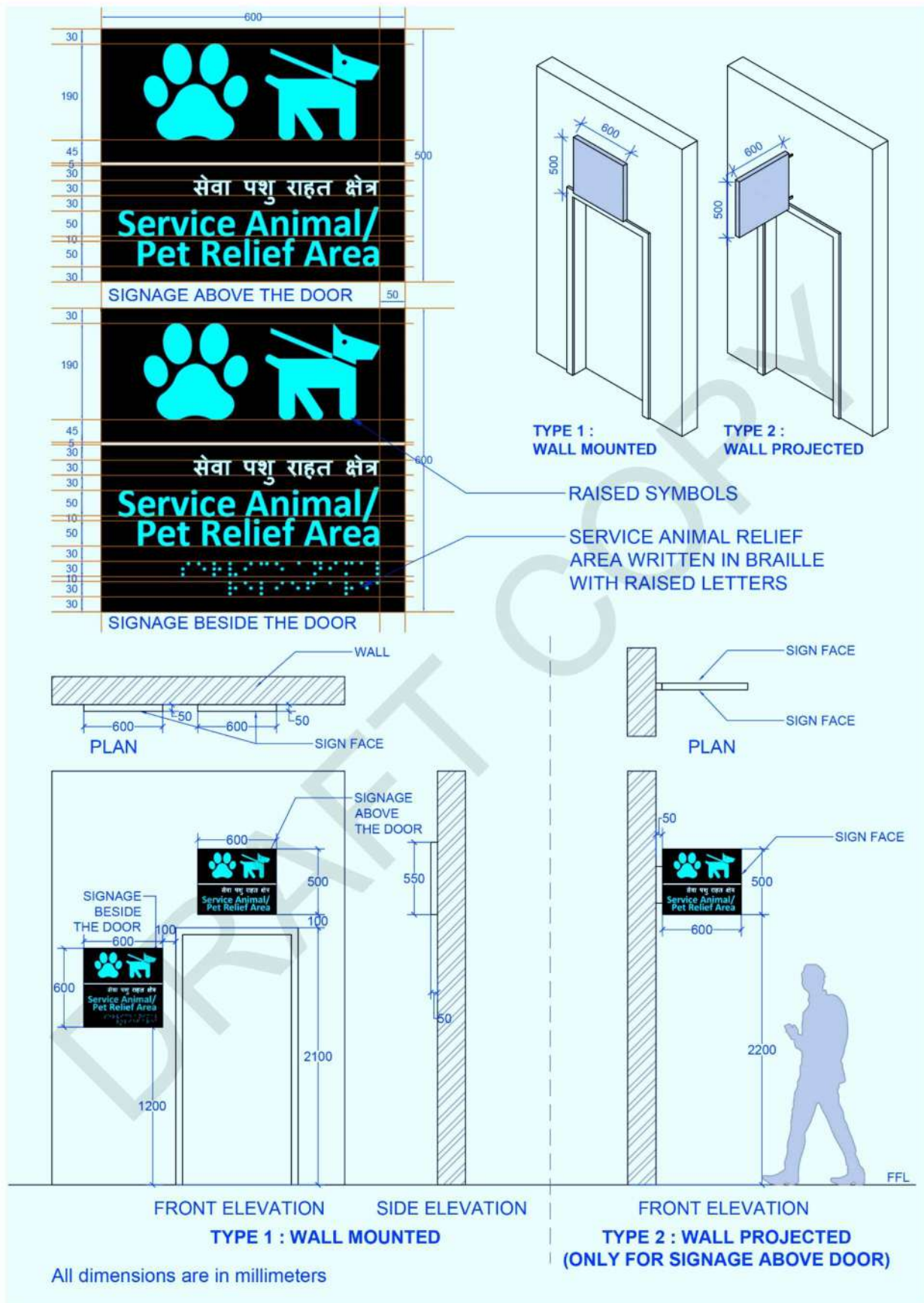


Figure 63: Details of signage for Service Animal/Pet Relief Area

20. Aerobridge and Ambulift

- 20.1 In all airports, for boarding any aircraft either an aerobridge or an Ambulift should be provided to facilitate [12]
- 20.2 Domestic airports where only ATR operations are carried, may be exempted from clause 20.1. However, appropriate arrangement shall be made for seamless movement of people with reduced mobility. Under no circumstances may the passengers be manually lifted. [12]
- 20.3 Antiskid material to be used for aerobridge flooring.



Figure 64: Example of aerobridge at Chennai Airport



Figure 65: Example of Ambulift

21. Low Floor Buses

21.1 Low floor buses to be used for seamless movement of wheelchair users. [12]

21.2 Buses should preferably have retractable steps/ramps for smooth entry exit. [12]

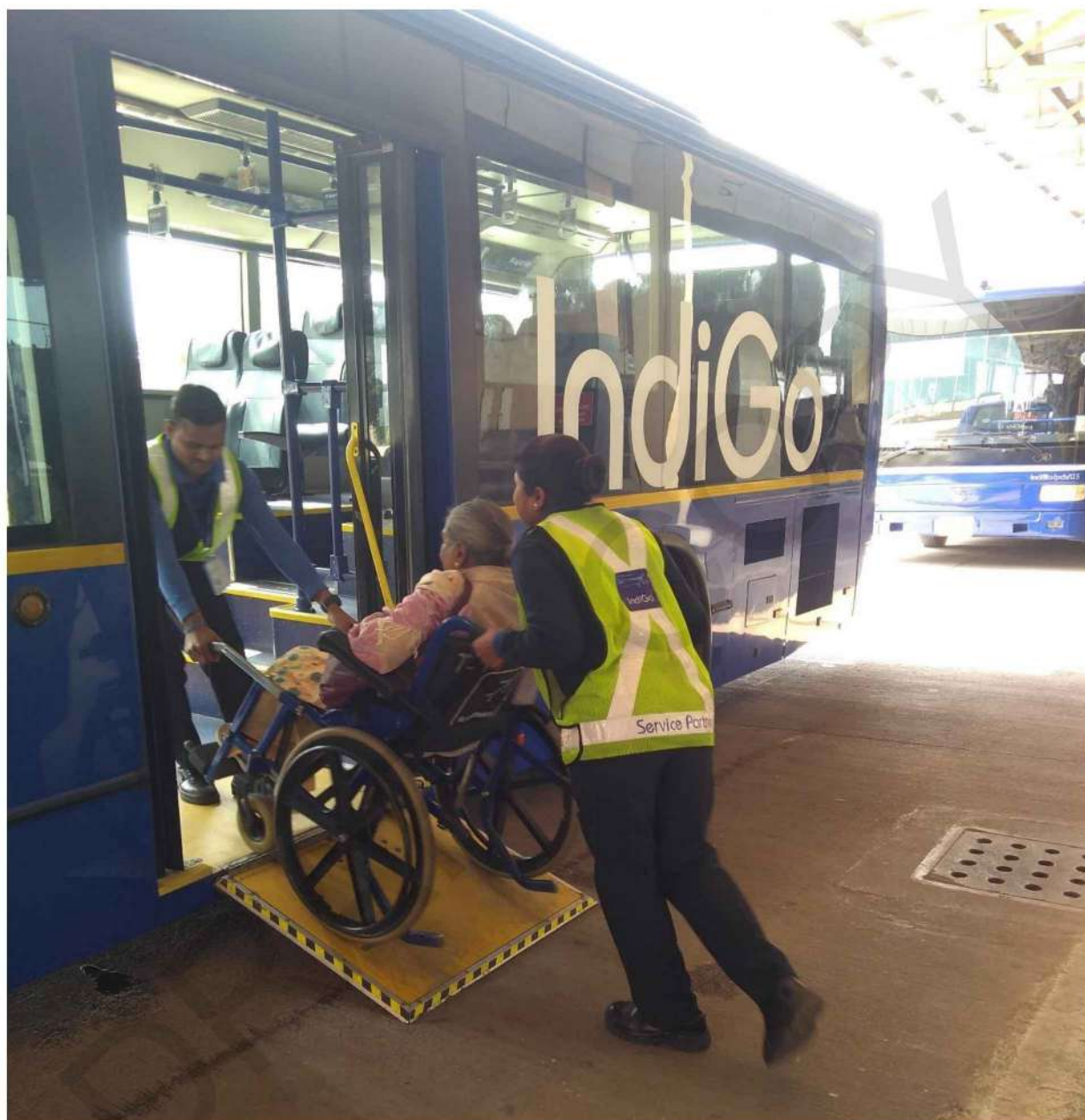


Figure 66: Example of a bus with ramp at Lucknow Airport

Part B: Accessibility features to be provided by Airlines

1. Facilities provided on the website

- 1.1 To help the airlines serve them better, the customers with an impairment should inform their complete requirement 48 hrs prior scheduled time of departure so that the airline makes necessary arrangements [2]
- 1.2 It is recommended that the website should have provisions to capture a medical practitioner's profile (such as doctors/nurse) to enable the inflight crew to seek their assistance during medical emergencies
- 1.3 Airline websites shall include provisions on their websites for customers to book a wheelchair in advance
- 1.4 Airlines shall send communication to the customers confirming their booking of wheelchair via SMS and Email [4]
- 1.5 All PWD related information shall be available on an airlines official website
- 1.6 Airline website shall be WCAG 2.0 compliant [4]

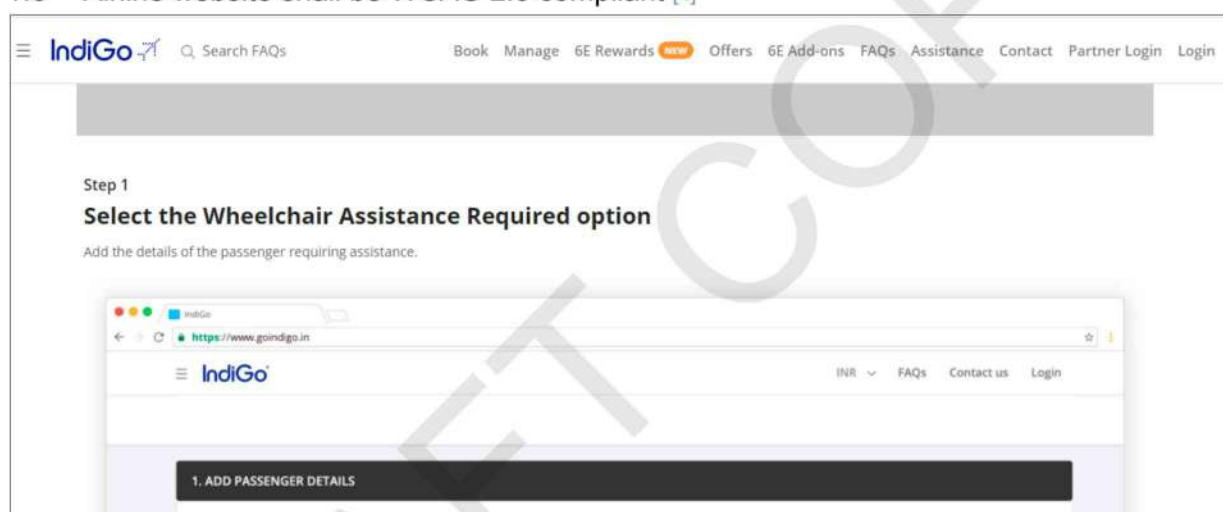


Figure 67: Wheelchair assistance option on Indigo Airlines Website

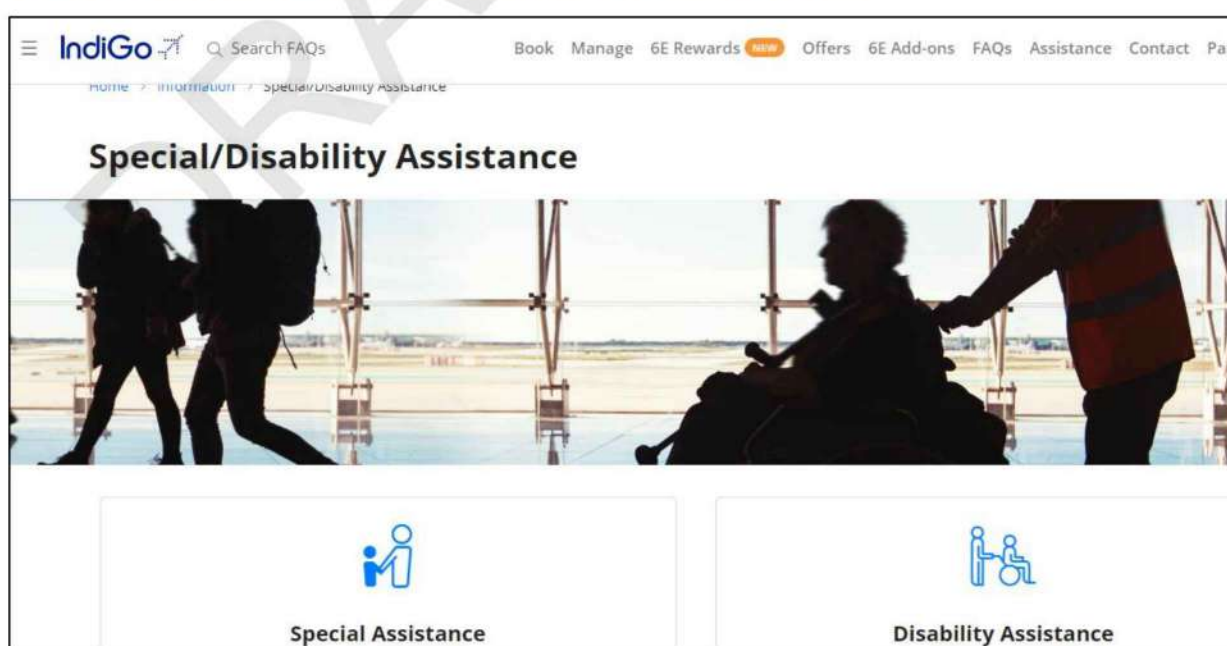


Figure 68: Special assistance option on Indigo Airlines Website

2. Call Centre/Airline/ OTA ticketing

- 2.1 Call Centre agents should include the special service request while making a booking along with other relevant booking information once the request is made 48hrs prior departure (Subject to declaration by customer)
- 2.2 At the ticketing counter, staff should include the special service information on the booking system and inform the customer accordingly once the request is made 48hrs prior departure. (Subject to declaration by customer)
- 2.3 Once a booking is confirmed, all relevant information should be shared on the airline system for customer assistance at the airport and the required information is to be shared with the crew through the manifest.

3. Services at the Airport

- 3.1 Although the basic responsibility for providing wheelchairs in the terminal building is that of the airport operator, the airlines may provide extra wheelchairs for the convenience of their passengers in the terminal building. [2]
- 3.2 In case a customer wants to check-in their own wheelchair (manual/automated), Airline shall ensure that wheelchair is duly tagged and sent to the baggage make up area with a service partner, to avoid damage. Also all assistive aids should be sent with a service partner and not on the conveyor belt [4]



Figure 69: Wheelchair service provided at Airports

4. Mobility Equipment

- 4.1 For planning to travel with their own personal mobility equipment, passenger should contact the airline in advance (at least 48 hours prior) to make the necessary arrangements. If a passenger wants to use personal mobility equipment till the boarding gate, the Airline shall advise on personal mobility equipment accepted on different aircrafts, things to note when packing equipment for carriage, as well as time for the passenger to be present for check-in.

5. Travelling with a service animal

- 5.1 Customers are advised to check with the airline on the specific requirements of bringing service animals on flights.
- 5.2 For transit passengers, before booking by Call Centre, both primary flight and outbound connecting flight airlines should be agreeable to have service animals onboard the aircraft. The request and agreeability to be taken by the passenger before travel.
- 5.3 At the airport, the service animal and passenger will be escorted by airline staff throughout your period of stay at the airport. If the service animal needs to answer the call of nature, both of them will be brought to an appropriate facility to be provided by airport operator

6. Special assistance

- 6.1 Customer should not be insisted to check-in their assistive aids/equipment, they may give their assistive aids/equipment at the aircraft door, which would later be given back to the customer after landing of the aircraft.
- 6.2 Airlines should inspect the functioning of wheelchairs before they are provided to customers to ensure their safety
- 6.3 Wheelchairs should have footrest and belt for customer safety and support
- 6.4 Where wheelchairs or other mobility equipment or assistive devices are lost or damaged whilst being handled at the airport or transported on board aircraft, the passenger to whom the equipment belongs shall be compensated by the airline/airport operator/GHA/organisation responsible for such loss or damage. [2]
- 6.5 Airlines to ensure appropriate seats (non-emergency) with enough leg space (generally towards the forward/Aft rows, as per aircraft LOPA) should be blocked for customers travelling with guide dog seated near them.
- 6.6 When overnight accommodation is offered by the airline during in-transit off- loading due to unforeseen circumstances, persons with disability or reduced mobility shall be allocated accommodation suitable to their needs as far as practicable. [2]
- 6.7 Airlines should allow carriage of assistive devices free of charge as additional baggage subject to the limitation of the aircraft. [2]
- 6.8 Where a person with disability or reduced mobility is assisted by an escort, the airline shall make all reasonable efforts to give such a person seat next to the persons with disability or reduced mobility. [2]
- 6.9 If a customer with learning disability speaks a language that the staff providing assistance is not familiar with then the staff shall seek help from their manager
- 6.10 When interacting with a visually impaired customer, staff should introduce themselves first. While assisting them through the terminal building, staff should also describe their surroundings. Also, when being handed over to a crew, a brief introduction of the customer and their requirement should be given.
- 6.11 For customers with hearing impairment, staff shall write down instructions and/or use gestures to explain the process.

7. Boarding/Ramp/Coach

- 7.1 A low floor coach or a ramp should be used, depending on coach type for comfortable boarding/deboarding for wheelchair users [4]
- 7.2 For customers with any other impairment, an airline staff should ensure that the customer is assisted till the aircraft and the crew is informed about their travel.
- 7.3 On the ramp, only a trained service partner and/or staff should support the customer with

- disability in embarkation and disembarkation.
- 7.4 Airlines should preferably use aerobridges if available at airport. In case of remote parking, Airline should use a ramp to board a wheelchair user. If the ramp is not available with airlines then the ambulift facilities may be availed by the airlines with applicable charges.
- 7.5 Wheelchairs to be embarked (preferably before boarding all customers) and disembarked (preferable, after deplaning of all customers) to ensure customers comfort and safety. Under no circumstances, persons with reduced mobility may be manually lifted. If passenger is travelling with escort, the escort should be allowed to provide the assistance including pushing the wheelchair. In case of non-availability of ambulift, trained manpower may be allowed to lift the wheelchair under supervision. Such provision may be made in coordination with Ground Handling Agencies (GHAs) if required.



Figure 70: Low floor buses and buses with in-built ramp



Figure 71: Ramp provided by Airlines

8. Onboard


- 8.1 For convenience of visually impaired customers, a safety instruction card may be provided in braille. However, the airline shall provide individual safety briefing to all visually impaired customers
- 8.2 Airline with on board entertainment (as applicable) may include content in accessible format, include safety video in sign language/subtitle.
- 8.3 Individual safety briefing should be provided to persons with disability or reduced mobility including their escorts by the cabin crew before take-off. Briefings should mainly cover safety and emergency procedures, cabin layout and relevant specialized equipment if available on board [4]
- 8.4 Airlines to ensure that visually impaired customers are made to touch the relevant equipment to assist them in understating the content of the safety briefing. Persons with hearing impairment customers are to be briefed verbally and through sign language.
- 8.5 Hearing impaired passengers may be able to lip read so crew to ensure they speak slowly and use hand gestures for effective understanding and supporting the customer in understanding safety briefs
- 8.6 Customers can be provided with in moving to and from the lavatory door. If assistance is required inside the lavatory, then it is recommended that the passenger travels with a Safety Assistant.
- 8.7 For embarkation/disembarkation and in-flight use, aisle chairs/ small wheelchairs should be carried on board for flights longer than 3 hours. The wheelchair shall be designed to be compatible with the maneuvering space, aisle width, and seat height of the aircraft on which it is to be used.



Figure 72: Example of Aisle chair to be used on-board

9. Forms

- 9.1 Customers should ensure that they share all relevant information with the airline at least 48 hrs prior to their departure for required assistance
- 9.2 Assistance should be provided to all customers with disabilities and ensure that the airline teams are not confused between a medical customer and a customer with disability.
- 9.3 Airlines shall not request any customers to fill indemnity form before their travel except in case of medical requirements.
- 9.4 Only medical customers should be required to fill MEDIF form specially for stretcher/critical illness customers to ensure that they may travel by air safely, this section should be specially designed by the Chief Medical Officer of Airlines.



Medical Form

APPLICATION FOR CARRIAGE OF MEDICAL PASSENGERS
 Detailed Medical Certificate must accompany this completed form. Medical Passenger Completed Application to be forwarded to the Medical Department DEL for approval.
IndiGo does not provide any oxygen for pre-booked medical passengers.
Oxygen cannot be carried by medical passengers.

STRETCHER CASE:
 (Allowed only on selected flights.)

SITTING CASE:

Customer's last name _____
 Customer's first name _____
 IndiGo Flight No. _____ Date _____
 Departure city _____
 Arrival city _____
 Permanent Address _____

In order for IndiGo to provide complete assistance, customers with a medical condition are requested to provide medical information as per the medical information form at least 72 hours prior to the scheduled departure of the flight.

Please note:

- Detailed Medical Certificate must accompany this completed form.
- On Completion, this form must be submitted to the Medical Department, Delhi for approval.

Figure 73: Medical form available on Airlines website

10. Training

- 10.1 Airlines should ensure that a Disability awareness training should be conducted for new hires and ensure periodic refreshers are conducted for all staff to reiterate policies and SOPs on customer assistance with different types of disabilities e.g.: hearing, visual, speech, wheelchair users, autistic etc.
- 10.2 The programs should focus on customer assistance and soft skills, example – How to interact with a customer with visual or speech impairment, how to transfer a customer with dignity from their assistive device to our wheelchair and asking the customer if they would need assistance
- 10.3 To ensure that staff is updated with current events, a bi-monthly awareness session is to be carried out with them in which customer feedback and service improvement is shared for their specific stations, so that over all service can be improved.



Figure 74: Training to be given to Airline staff

11. Standardized Training and Audits

- 11.1 Airlines to ensure that all staff are trained on “How to assist customers with disability”. Staff such as Terminal employees, Airside employees, Security employees and Service partners (customer facing) should be trained on the critical measures to be undertaken while assisting customers with disabilities.
- 11.2 Disability training modules of all staff assisting customers with disability should be based on the following points:
- Best practices followed around the Globe by other airlines
 - Lessons & learning from incidents
 -
 - Customer Feedback
 - SOPs training through role plays
 - Correct way to assist a customer with disabilities
 - Sensitisation towards their needs when interacting with them
- 11.3 Airlines should conduct periodic Internal Audits to ensure-
- Assisted devices are in good condition
 - Handling personnel are trained

Part C: Accessibility features to be provided by Security Agencies

Introduction

Bureau of Civil Aviation Security has issued procedure for screening of passengers and carry-on baggage vide Circular No. 23/2005. The procedure for screening of persons with special needs including differently – abled passengers and passengers with medical condition, has been described in the said circular. The following Standard Operating Procedure (SOP) is laid down in the following paragraphs, prescribing the guidelines for screening of such passengers and devices and carry-ons pertaining to them. [13]

1. General

- 1.1 All airport operators should make special arrangements to facilitate screening of persons with special needs as above so that the process is carried out efficiently keeping the dignity and privacy of the passenger in mind while ensuring adequate level of screening. This will include provision of suitable enclosed space for private screening of passengers covered in this SOP. [13]
- 1.2 The airport management/representative of air carrier shall provide wheel chairs and render necessary assistance to facilitate the movement of the persons with special needs, when required. However, they would not normally be directly taken to the aircraft, except in case of ambulance passengers. [13]
- 1.3 While thorough checking is essential and the directives under AVSEC circular No. 23/2005 will be followed in letter and spirit, courtesy and attention to privacy and dignity will be invariably observed. [13]
- 1.4 In this case of a passenger having difficulty in walking or standing, the way his or her screening is conducted will depend on his or her level of ability/disability. [13]
- 1.5 If a passenger has difficulty standing or waiting in line due to a disability or a medical condition, he/she should duly inform the screening personnel who will assist in directing the passenger either to front of the queue or to a separate line. Passengers should be encouraged to indicate brief details of their disability at the time of booking of the ticket itself and in case of such prior information, airlines and security staff shall make advance preparation for such passengers. [13]
- 1.6 Medical documentation is helpful but not essential. [13]
- 1.7 Canes, crutches and other devices which can be separated from the passengers should be subjected to x-ray screening. [13]
- 1.8 Wherever testing is done for detection of explosives, in addition to ETD, help of dog squad may be taken as per need. However, sensitivity of passenger and religious considerations may be kept in mind. [13]
- 1.9 The procedure laid down herein is not exhaustive, and therefore, in the situations/ circumstances not exclusively dealt with in this SOP, common sense of the screener shall prevail depending upon the situation, circumstances and condition of the passenger. For example, special procedure may be devised for persons with autism, Down Syndrome, etc. The paramount importance is to ensure aviation security and at the same time safeguarding dignity of the passengers and preserving privacy. [13]
- 1.10 All courtesies to be extended to PRM.

2. Screening of passengers who use wheel chair or scooters (self-driven wheel chair)

- 2.1 When a passenger arrives at a screening point in a wheel chair/scooter, he/she must be accompanied either by another travelling passenger or an airline representative (including GHA of the airline) before he proceeds through security. The accompanying passenger or the airline representative is responsible for the passenger throughout the whole process of screening. [13]
- 2.2 If a passenger arrives at a screening point in a wheelchair and he/she is not accompanied by another travelling passenger or an airline representative, the airline's Customer Services should be contacted for assistance. [13]
- 2.3 At the screening point, depending upon the ability of the passenger to walk, he/she will be requested to walk through the DFMD unaided. If he/she cannot walk, it is the responsibility of the accompanying travelling passenger or the airline representative to push the passenger in the wheelchair unless it is self-driven. [13]
- 2.4 In accordance with Airlines' policy, there may also be non-travelling support personnel in attendance to board the aircraft and lift the passenger into his/her seat. This support person must be accompanied by the airline representative. [13]
- 2.5 If there is a requirement for the passenger to be lifted at the screening point, the support person or the airline representative will perform the lifting for the passenger.
- 2.6 The support person will be escorted by an Airline representative at the time of boarding/disembarkation. [13]
- 2.7 If the passenger can stand but cannot walk, he/she can be screened by undergoing a pat-down while he/she stands beside the wheelchair or scooter. [13]
- 2.8 If a passenger cannot stand, he/she should be offered a chair for screening and subjected to a pat-down thereafter. [13]
- 2.9 If there is an alarm by the DFMD, HHMD or other technology, the same must be resolved. If the alarm cannot be resolved, the passenger will not be permitted beyond the checkpoint. [13]
- 2.10 The passenger's wheelchair or scooter will be inspected, including the seat cushions and any pouches/ pockets. It will be tested for traces of explosives. Removable pouches will be x-ray screened. [13]
- 2.11 Any carry-on bag or document with the wheelchair passenger shall be passed thorough the x-ray screening. [13]
- 2.12 If a person objects to proceeding thorough the DFMD on justified medical or other ground, he/she will be allowed passage thorough alternative way by the frisking officer and then subjected to screening by pat down search and HHMD where permissible. [13]
- 2.13 If a person refuses to undergo screening, the frisking officer will inform the supervisor, who will direct what further action is to be taken. The concerned passenger will not be allowed entry past the screening point. [13]
- 2.14 Only when satisfied that a person is not carrying any prohibited or dangerous article, the screening officer shall allow the person to proceed beyond the screening point. [13]

3. Screening of passenger with prosthetics

- 3.1 During screening of prosthetics ASG/APSU may use X-ray, ETD and visual check depending on the circumstances. [13]
- 3.2 The passenger should inform the ASG/APSU of the existence of a prosthetic, his or her ability and of any need for assistance before screening begins. Passengers can use

- Notification Card to communicate discreetly with security officers. However, showing this card or other medical documentation will not exempt a passenger from additional screening when necessary. [13]
- 3.3 Dignity and privacy of the passengers should be borne in mind during the entire process of security screening. Where the officer needs to use the prosthetic, care should be taken against exposing any sensitive areas. ASG/APSU will also use technology to test the prosthetics for traces of explosive material. If explosive material is detected, the passenger will have to undergo additional screening. [13]
 - 3.4 The passenger will first pass through the DFMD and necessary security checks. [13]
 - 3.5 The passenger should then be taken to a private screening point and made to sit comfortably. He/she will receive additional screening including a pat-down. If necessary, screening through ETD trace will be adopted. While dealing with prosthetic device and during taking off and putting on of clothes, privacy of the passenger should be maintained. [13]
 - 3.6 The screening in the private screening area will be carried out by two officials, one to handle to HHMD and pat-down and the other to inspect the prosthetics, braces and support appliance and subject them to additional screening. [13]
 - 3.7 During the screening of prosthetics ASG / APSU may use visual check, ETD and X-ray screening depending on the circumstances of each case. This passenger needs to be handled with sensitivity. [14]
 - 3.8 The passenger with prosthetics or braces / support appliances will inform the airline concerned and must be accompanied by an airline representative, preferably of the same gender as that of passenger. [14]
 - 3.9 The passenger should inform the ASG/APSU of the existence of a prosthetic part before the screening begins. [14]
 - 3.10 The staff of airline and any other accompanying person shall be frisked and checked before allowing them access to the passenger with prosthetics at the screening point. [14]
 - 3.11 The passenger will first pass through the DFMD and necessary security checks. [14]
 - 3.12 A prosthetic appliance which does not have any foam padding cover under which any weapon / explosive can be concealed and in which the steel rod of the appliance is clearly visible, may be screened by visual inspection and ETD checks only, without removing it. However, in rare cases where there is sufficient justification including profiling of the passenger, X-Ray screening may be resorted to. The justification for subjecting a prosthetic limb to X-Ray screening shall be recorded by the screener in a register. During visual inspection, care should be taken that sensitive parts are not exposed. [14]
 - 3.13 Screening of prosthetic appliance covered with foam padding (in which the steel rod of the appliance is not visible) shall include visual inspection, ETD checks and X-ray screening. X-ray screening of such appliances in which a weapon could be concealed under the foam padding will be done in all cases unless it can be physically checked to ensure that no weapon is concealed inside the padding. [14]
 - 3.14 If X-Ray screening of the prosthetic limb is required, such passenger should be taken to a private screening point and made to sit comfortably for taking off his/her prosthetic limb. While dealing with prosthetic device and during removing and wearing clothes, privacy of the passenger should be maintained along with the proper log entry. [14]
 - 3.15 If screening of the prosthetic limb is required, then the screening in the private screening area will be carried out by two officials, one to handle HHMD and pat-down and the other to inspect the prosthetics, braces and support appliance and subject them to additional screening. [14]

4. Screening of passengers who cannot remove shoes, medical device or bandages

- 4.1 Passenger who cannot remove their shoes due to a medical condition should inform the supervisor, SHA before screening. [13]
- 4.2 Passenger can be screened using DFMD and/or a whole -body pat-down. [13]
- 4.3 The shoes may be subjected to additional screening like ETD, etc. [13]
- 4.4 Passenger can be screened without disconnecting external medical devices and submitting them for x-ray. Such devices include:
 - i. Insulin pumps.
 - ii. Hearing aids
 - iii. Cochlear implants
 - iv. Spinal stimulators
 - v. Bone growth stimulators
 - vi. Ostomies [13]
- 4.5 Under most circumstances, a passenger can conduct a self-pat-down of these devices followed by ETD screening of his/her hands. [13]
- 4.6 The devices should also be physically checked against any outside interference in the manufacturing. [13]
- 4.7 Casts, braces and support appliances will be thoroughly inspected without exposing sensitive areas as far as possible. ETD screening will also be used to test for traces of explosive materials, where possible. [13]
- 4.8 In case of bandages and/or dressing, while caution will be observed during pat-down, it needs to be ensured that the covered area is free of threat item. Metal detector, observation and self pat-down followed by ETD checks may suffice in most cases. [13]
- 4.9 Passengers with metal implants will be subjected to a thorough pat-down, and the metal alarm should be resolved satisfactorily. The full body pat down should include the following:
 - i. It should concentrate on upper legs and torso.
 - ii. Special attention should be given to the chest and abdomen areas of the body.
 - iii. Particular focus should be on any skin surface abnormalities or wires or tubes existing in the body that may be signs of an implanted device. [13]
- 4.10 In accordance with BCAS memo. No. CAS - 3 (32)/2009/DIV-III B (SA Kolkata) dated. 5.9.2010, all airport operators shall display a board near SHA in a prominent way stating that DFMD/HHMD are safe for pacemaker and for pregnant ladies. [13]

5. Screening of passengers with service animals:

If the passenger has a service animal, the instructions issued by AVSEC circular no. 6/2001 shall be implemented. If the service animal is permitted to be carried on board the following instructions shall be followed:

- 5.1 The animal must be wearing a harness, vest, or other identifier that it is a service animal. [13]
- 5.2 The passenger must maintain control of the animal at all times. [13]
- 5.3 He or she should not be separated from the service animal. [13]
- 5.4 The screening officer should ask for permission of the passenger before touching the animal. [13]
- 5.5 Service animals are screened using walk through metal detector followed by a pat down. There are three options:

- i. The service animal goes first and the passenger follows holding the leash.
 - ii. The passenger goes first holding the leash and the service animal follows.
 - iii. The passenger and the service animal go together. [13]
- 5.6 Regardless of who goes through the metal detector first, the screening officer will perform a physical inspection of the animal and its belongings (collar, harness, leash, backpack, vest, etc.). The belongings will not be removed from the animal. [13]
- 5.7 The passenger should not make contact with service animal (other than maintain control of the leash) until the animal has been cleared. [13]
- 5.8 Medication for serving animals will be subjected to X-ray and other screening, if required, separately. These also should be separated from other items in the passenger carry-on. [13]

6. Ambulance passenger

- 6.1 Due to exigencies of their exceptional medical conditions/ illness, some passengers are directly taken through the security gates to the aircraft for boarding. [13]
- 6.2 In such cases, as far as possible, the airport operator/ airline should provide its own ambulance. [13]
- 6.3 The passenger and all occupants of the vehicle should be subjected to a pre-embarkation security check at the security gate by the ASG/APSU staff under the supervisor of an officer not below the rank of an Inspector. The ambulance should be permitted to proceed to the aircraft only after this check has been completed. [13]
- 6.4 In case the ambulance is privately owned or hospital provided, it must be led by follow-me vehicle of the airport operator. The ASG/ APSU staff shall check to ensure that the vehicle do not carry anything objectionable and are not being accompanied by unauthorized persons or persons who have no need to be in the vehicles. Such ambulance will be escorted by ASG/APSU staff. [13]
- 6.5 All occupants of the vehicles, unless exempted, must be screened at the gate before allowing entry into the airport. [13]
- 6.6 The movement of the ambulance should be coordinated well in advance by the airline operator with CASO and airport operator. [13]

7. Screening of medication and associated supplies

- 7.1 All medications and associated supplies (i.e., syringes, sharps disposal container, pens, infuser etc.) are allowed through the checkpoint only after they have been screened. [13]
- 7.2 Medication and related supplies are normally X-rayed. [13]
- 7.3 Passengers have the option of requesting a visual inspection of medications and associated supplies with due reason. [13]
- 7.4 Any medication that cannot be cleared visually must be submitted for X-ray screening.
- 7.5 BCAS has issued detailed guidelines regarding carriage of liquids, aerosols and gel (LAGs) on board vide AVSEC circular No. 18/2006. Medically necessary LAGs are permitted in excess of 100 ml on need basis after they have been screened. These items are subject to additional screening through visual inspection and ETD swipe, if necessary. [13]
- 7.6 If a passenger has medically necessary LAGs, he or she needs to:
 - i. Limit the amount to what is reasonably necessary for the itinerary;
 - ii. Separate these items from the other LAGs;
 - iii. Declare the items; and,
 - iv. Present these items for additional inspection on reaching the security check point.[13]

8. X-ray screening of respiratory equipment

- 8.1 Supplemental oxygen and other respiratory related equipment are permitted through the checkpoint once they have been screened. This is subjected to DGCA regulations also. [13]
- 8.2 If a passenger can disconnect from the oxygen, the oxygen container will undergo X-ray screening. [13]
- 8.3 Passenger who cannot disconnect from respiratory equipment will be screened by undergoing pat-down. [13]
- 8.4 Respiratory equipment that is not X-rayed will be visually and physically inspected, and will be subject to ETD screening. [13]

Part D: Guidelines for Evacuation Protocol

The purpose of this chapter is to identify the unique problems associated with emergency evacuation of persons with disabilities from a facility. This information provides a general guideline of evacuation procedures for persons with disabilities for fire and other building emergencies. The following points about various disabilities should be considered while making the evacuation protocols and revising the existing protocols.

1. General

- 1.1 Always ask someone with a disability how you can help before attempting any rescue technique or giving assistance. Ask how they can best be assisted or moved, and whether there are any special considerations or items that need to come with them. [15]
- 1.2 If the person has a service animal, it is the animal owner's responsibility to assess whether or not it is safe for the animal to work through the emergency situation. [16]
- 1.3 To make this decision, the service animal owner will need information as to the nature of the hazards they are expected to face and any changes to the physical environment [16]

2. Visual Impairments

- 2.1 Most persons with visual impairments will be familiar with their immediate surroundings. In the event of an emergency, tell the person with a visual impairment the nature of the emergency and offer to guide the person to the nearest emergency exit. [17]
- 2.2 Tell the person the nature of the emergency and offer to guide him/her by offering your left/right elbow (this is the preferred method when acting as a "Sighted Guide"). Do NOT grasp a blind or person with low vision's arm. [17]
- 2.3 Do not shout at a person who is blind or has reduced vision. Speak clearly and provide specific directions. [16]
- 2.4 As you walk, tell the person where you are and advise him or her of any obstacles. When you reach safety, orient the person to where he or she is and ask if any further assistance is needed. [18]
- 2.5 To communicate with someone who is deaf-blind, trace letters in their hand with your finger. [16]
- 2.6 Do not assume that the person cannot see you. [16]
- 2.7 Avoid the term "over there"; describe positions such as, "to your right / left / straight ahead / behind you" If the person has a service animal on duty, ask them where you should walk to avoid distracting the animal. Do not separate the service animal from its owner. [16]

3. Hearing Impairments

- 3.1 Some persons with hearing impairments may not perceive audio emergency alarms and will need to be alerted to the situation by gestures or by turning the light switch off and on. Do not use the light switch technique if you smell natural gas in the area. Emergency instructions can be given by verbalizing, mouthing, or by a short, explicit note. Example: Fire alarm go out south doors now! [18]
- 3.2 Get the person's attention via a visual cue or a gentle touch on their arm. Do not approach the person from behind. [16]
- 3.3 Face the person, make eye contact when speaking to them as they may rely on lip reading and communicate in close proximity. Speak clearly and naturally. Do not shout or speak unnaturally slowly. [16]
- 3.4 Use gestures to help illustrate your meaning. [16]

- 3.5 If there is time, it may be helpful to write a message. [16]
- 3.6 Hearing aids amplify sounds and can create a physical shock to the user, so do not make loud noises. [16]
- 3.7 Note that some people may be deaf-blind. [16]
- 3.8 Give visual instructions to advise about the safest route or direction by pointing toward exits or evacuation maps. [19]

4. Mobility Impairments/Wheelchair users

- 4.1 Mobility limitations may make it difficult for a person to use stairs or to move quickly over long distances. Limitations may include reliance on mobility equipment such as a wheelchair, walker, crutches or a walking cane. People with a heart condition or respiratory difficulties may also have limited mobility. [16]
- 4.2 Since elevators should not be used for evacuation during a fire alarm, persons with mobility impairments may need assistance in evacuating unless they are on the ground floor with accessible exits. As persons with mobility impairments have varying degrees of limitations, information is offered for two possible scenarios: ambulatory and non-ambulatory impairments. [18]
- 4.3 Try to ensure that the person's wheelchair is transported with the person. [16]
- 4.4 If this is not possible, employ other evacuation techniques as appropriate, such as use of the evacuation chair, shelter-in-place (if instructed to do so), or lifts and carries by trained personnel. [16]
- 4.5 Do not push or pull a person's wheelchair without their permission, unless it is a matter of life or death. [16]
- 4.6 Avoid leaning on wheelchair or assistive device as it is a part of the individual's body space. [17]
- 4.7 Stairway evacuation of wheelchair users should be conducted by trained professionals. Only in situations of extreme danger should untrained people attempt to evacuate wheelchair users. Moving a wheelchair down stairs is never safe. [15]

5. Ambulatory Mobility Impairments

- 5.1 Persons with mobility impairments who are able to walk independently, either with or without the use of crutches or a cane, may be able to negotiate stairs with minor assistance in an emergency. Even some persons who customarily use a wheelchair or scooter for long distance travel may be able to walk independently in an emergency. [18]
- 5.2 If individuals are able to walk up or down stairs, it is advisable that they wait until the heavy traffic has cleared before attempting to evacuate. Someone should walk beside the person to provide assistance in exiting the building, if needed. [18]

6. Speech Disabilities

- 6.1 Identify yourself and offer assistance. [17]
- 6.2 Concentrate on what the person is saying. [17]
- 6.3 Try to ask questions that require only short answers. [17]
- 6.4 Do not speak for the individual or attempt to finish his or her sentences. [17]
- 6.5 If you do not understand something the individual says, do not pretend you do. Ask the person to repeat what he or she said and then repeat it back to confirm. [17]
- 6.6 Be patient. Take as much time as necessary as long as it does not endanger you. [17]
- 6.7 If you are having difficulty understanding the person, ask the individual if it is acceptable to use pen and paper, a talk board, etc. [17]

7. Service Animals:

- 7.1 Guide dogs come in all sizes and breeds from Chihuahuas to Great Danes. If an individual tells you their animal is a service animal, believe them and help them accordingly. [17]
- 7.2 The animal may become scared and disoriented because of the disaster and may not be behaving as usual. Ask the owner to assist in calming the animal and help in its evacuation. [17]
- 7.3 Evacuate the service animal with the individual whenever possible. [17]

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RECEPTION DESK



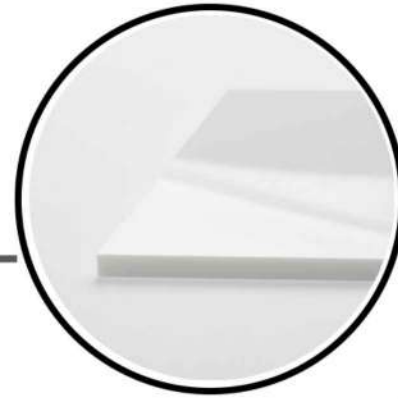
LIGHT WOOD VENEER

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THICKNESS : 3 MM.
PANEL SURFACE : POLISHED



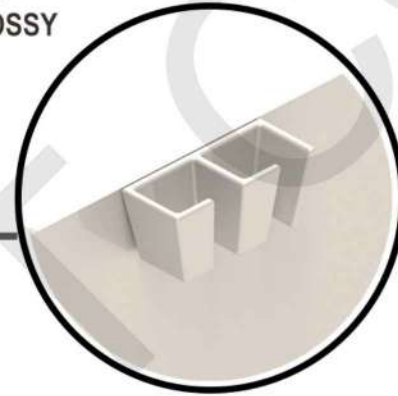
LIGHT WOOD VENEER

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BASE MATERIAL : MDF
THICKNESS : 3 MM.
PANEL SURFACE : POLISHED



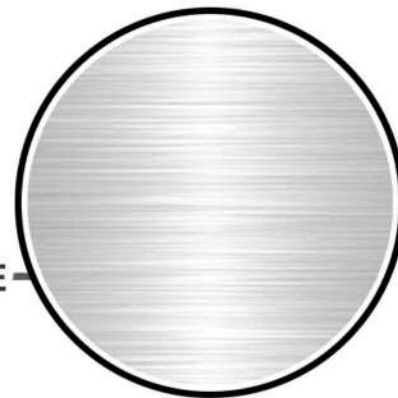
ACRYLIC SHEET

COLOR : PURE WHITE
BASE MATERIAL : ACRYLIC
THICKNESS : 3 - 12 MM.
PANEL SURFACE : GLOSSY



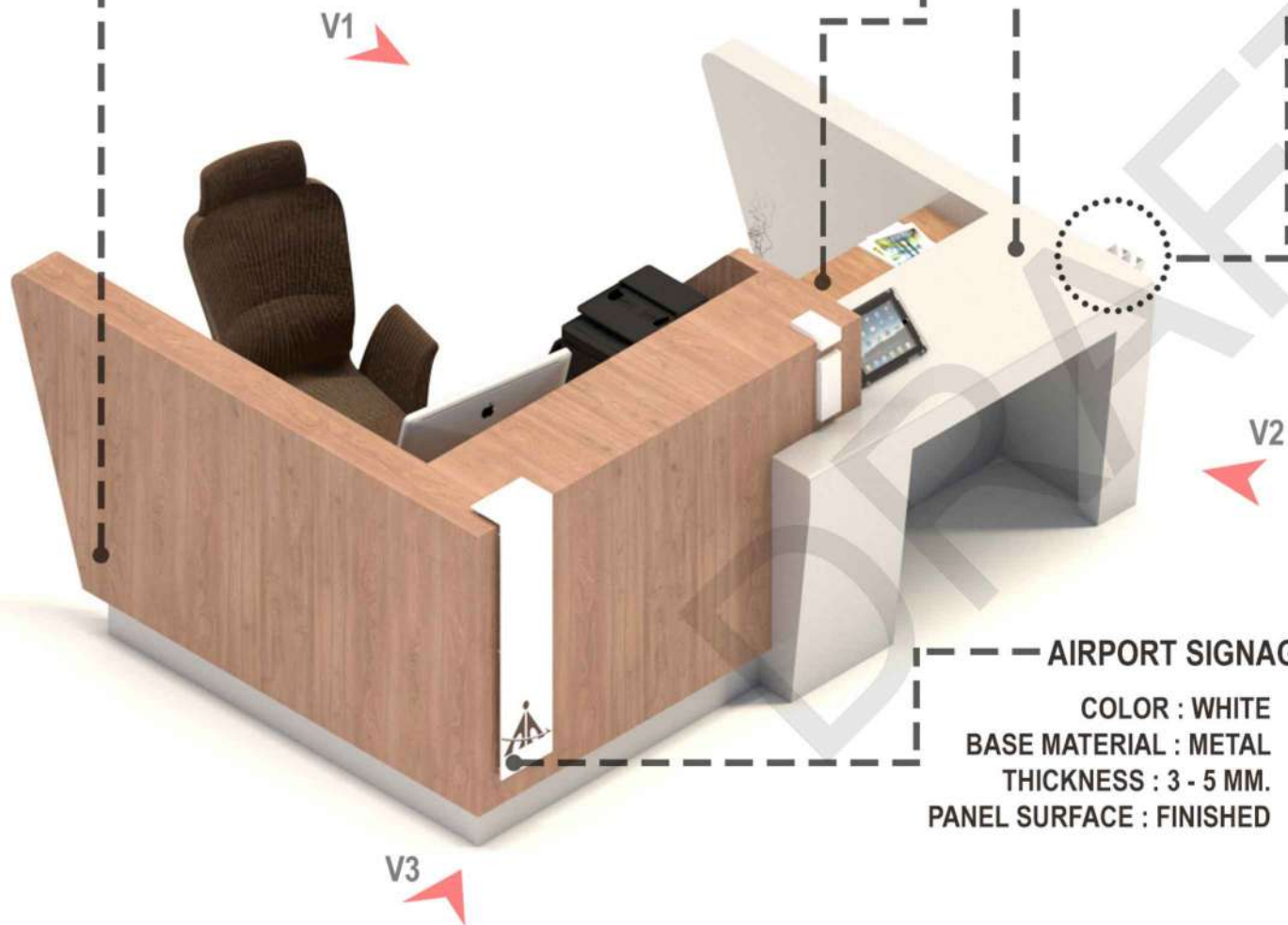
ATTACHED GROOVE

TO ACCOMMODATE SUPPORT
STICK USED BY HANDICAPPED
PEOPLE OR SENIOR CITIZENS



AIRPORT SIGNAGE

COLOR : WHITE
BASE MATERIAL : METAL
THICKNESS : 3 - 5 MM.
PANEL SURFACE : FINISHED



VIEW 1



VIEW 2



VIEW 3

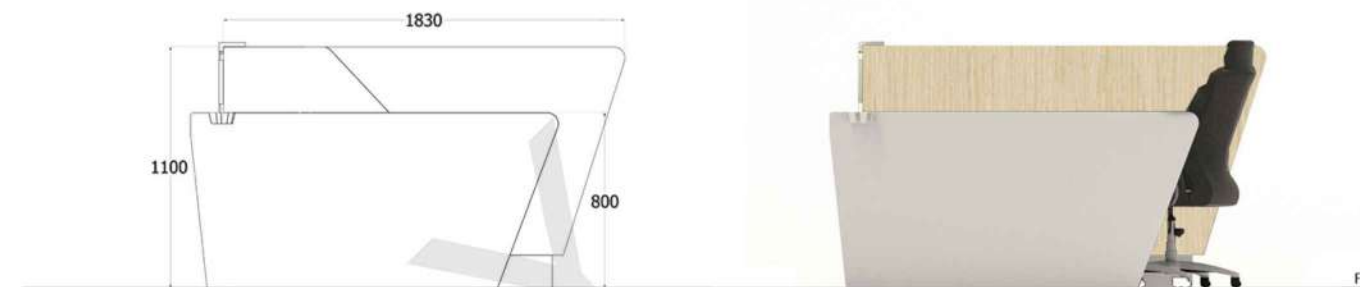




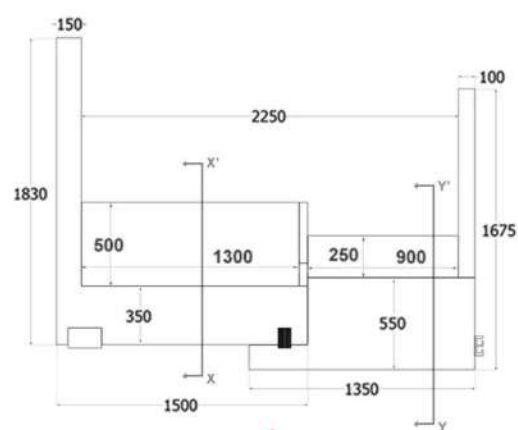
SECTION XX'

SECTION YY'

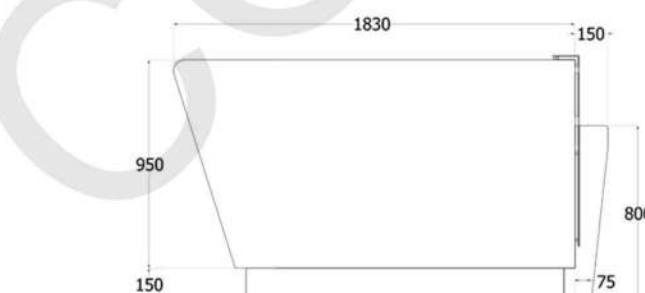
SECTIONS



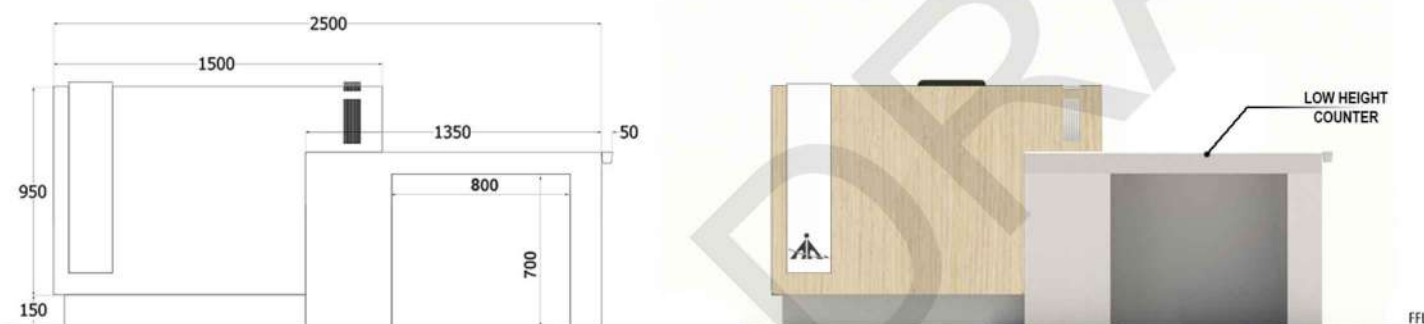
RIGHT SIDE ELEVATION



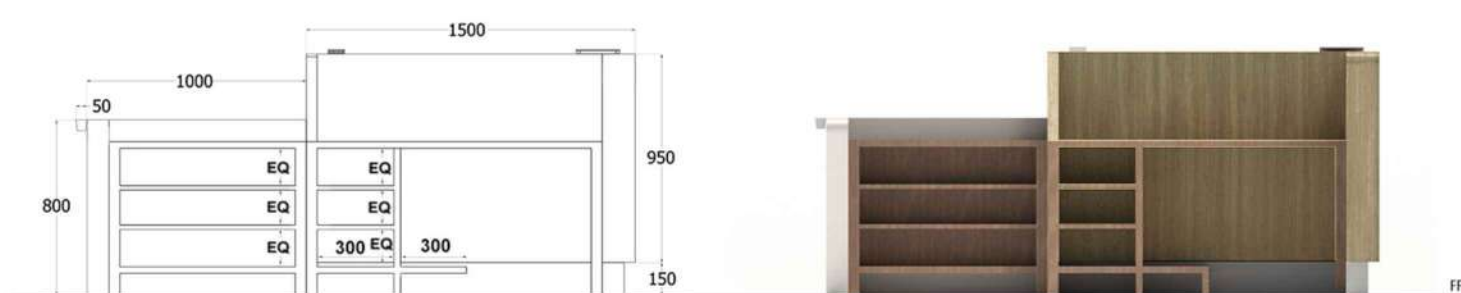
PLAN



LEFT SIDE ELEVATION



FRONT ELEVATION



BACK ELEVATION

* all dimensions are in mm *





सत्यमेव जयते

Ministry of Civil Aviation
Government of India