WIP Accessibility Standards for Transport Eco-System

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MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
Common				
A	BOOKING			
		FMC to RB	★ Non-Negotiable	
	DTC,) aisle / bulkhead seat etc, kerb to kerb assistance, app based on demand seat assistance (Pizza delivery), Ambulift / aerobridge logic.			

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A02	UDID based concession	FMC to RB	★ Non-Negotiable	
В	SECURITY			
B01	Sector created manual - common process, recognition of Sunflower Lanyard	Services - security screening	★ Non-Negotiable	
B02	Separate queue with screening / privacy room, ETDs, wide x-ray, QR coded AAC poster on process		★ Non-Negotiable	
B03	FREMEC, Assistance cards and AAC customised boards		★ Non-Negotiable	
B04	Wider AFCs with angled ticketing interface and adjacent wide swing door with trained human assistance		★ Non-Negotiable	
B05	Mobility device handling, stowage, DAA tag, damage and interim rental		★ Non-Negotiable	
С	MOBILITY SOLUTION INVENTORY			
C01	Buggy in lieu of WCHR & WCHS - Wheelchair accessible option with ramp		★ Non-Negotiable	
C02	Electric vehicles footboard need to have lower heights and AVAS		★ Non-Negotiable	
C03	Mini and micro shuttle buses cannot be exempt from low floor requirements		★ Non-Negotiable	
C 04	Manual / power wheelchairs (with flags) to be distinguished from aisle chairs		★ Non-Negotiable	
C05	Power wheelchair charging point		Aspirational	
C 06	Trolley steps & wheelable ramps		★ Non-Negotiable Railway / Type II Bus	
C07	Luggage Trolley - self wheelchair		★ Non-Negotiable Airport	
C08	Bridging rollout ramps (caster wheel safety)		★ Non-Negotiable RRT / Metro, Ferry, Aerobridge	
C09	As per passengers' preferences, access whilst still using adaptive equipment i.e. without transferring as far as possible, must be provided with demarcated designated spaces, securing points and stowage compartments.		■ Desirable / Recommended	
D	PROCUREMENT & BUDGETING			
D01	Timebound accounting head for Retrofit India campaign as % of total		★ Non-Negotiable	
D02	Bilateral agreements to comply with accessibility standards even in ToT, goods arising from conditional loans		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINI
Е	BUILDING INFRA			
E01	Location, convenience and alignment must centre around the shortest distance to be travelled by <u>ambulant</u> disabled passengers, with <u>travel centric</u> design of new transportation facilities		★ Non-Negotiable Airport Desirable / Recommended	
E02	Universal Design of infra - waiting room, dorms, dual height counters, kiosks, multimodal signage, surface contrast and safety	SAC-RR Draft BE - A	★ Non-Negotiable	
E03	All toilets to be step-free with grab bars at sink, commode/ urinal and lever controls. Temporary locker facility to keep luggage, doors to have hooks for bags		★ Non-Negotiable	
E04	Standalone unisex single occupant wheelchair accessible toilet Type A per floor, per terminal		★ Non-Negotiable	
E 05	Family Toilet - multi occupant, standalone, mixed gender with adult changing table, shelves with medical waste bins, baby counter and infant foldable seat with seatbelt	FMC to RB Adapted - for rail, road, water. Changing Places compliant for international airports.	➤ Non-Negotiable Int Airport - Changing Place compliant ■ Desirable / Recommended Adapted Changing Places standard for large stations, bus terminals	
E06	Rescue Assembly floor marked Area with Evacu Chair at staircases, connected with tactile, homing signal		★ Non-Negotiable	
E07	Quiet / Sensory Room near Prayer room		■ Desirable / Recommended Airport	
E08	Escalator safety	FMC to RB	★ Non-Negotiable	
E09	ETDs for disability priority queue and Xray large enough for wheelchair, SUnflower lanyard trained staff and QR code to govt site with security rules infographic and accessible privacy screen with transfer seat		★ Non-Negotiable Airport	
E10	Audio induction loop areas and design		Aspirational	
E11	ULE BT Beacon based wayfinding Static and dynamic maps		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LIN
			Maps	
			_ !,	
			Desirable / Recommended	
			Airport	
			Aspirational	
			Other transport	
E12	Navilens type QR code wayfinding to supplement TGSIs		Aspirational	
E13	Tactile map at accessible entrances to be supplemented by tactile cues at railings and outside lift jamb		★ Non-Negotiable	
F	COMMS & ICT			
F01	Multimodal 'web-first' communication, Visit us accessibility, accessible parking, gate, entrance and toilet mapping and	FMC to RB	★ Non-Negotiable	
	service alerts.	<u>IS-17802</u>	D : 11 /	
F02	Announcement feed to online text feed for deafblind		Desirable / Recommended	
			Recommended	
G	SERVICES			
G01	Transit & travel orientation to familiarise passengers and Orientation & Mobility training for newly disabled / 1st timers		■ Desirable /	
			Recommended	
G02	Operations SoP, personnel training, support staff certification and passenger responsibilities		★ Non-Negotiable	
G03	First responder training, evacuation, rescue		★ Non-Negotiable	
G04	Wheelchair / assistive device safe handling SOPs		★ Non-Negotiable	
			Air	
G 05	ALIMCO rent a mobility device stall in case of damage		■ Desirable /	
			Recommended Air	
			7 (11	
Н	FEEDBACK & ASSISTANCE			
H01	Diversity and Disability support component in training syllabus for air stewards, pilot / captain, porter / concierge, CISF / Security / Porter / MAAS etc		★ Non-Negotiable	
H02	Anonymised disaggregated data of complaints, safety incidents etc to be provided by regulators via data.gov.in		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
H03	Sign-Line ISL Video Relay Phone Service to supplement national remote realtime translation helpline and CART startups		■ Desirable / Recommended	
H04	AAC Communication board standardised for travel		Desirable / Recommended	
I	BOARDING SOLUTIONS			
101	Bus wheelchair lifts currently deployed in PM eBus Sewa scheme to undergo safety testing and then fit-to-ply demo in real world conditions		★ Non-Negotiable	
102	Platform gap rubber fillers to be provided at metro stations and RRT		★ Non-Negotiable	
103	Bridge plate - automated, <u>vehicle based</u> to be tested and deployed at metro and RRT		Aspirational	
104	Bridge plate - automated, <u>platform based</u> to be tested and deployed at metro & RRT		Aspirational	
i05	Rollout ramp - manual for metro & RRT		★ Non-Negotiable	
106	Platform screen doors to be provided at metro & RRT stations in addition to tactile platform warning edge.		★ Non-Negotiable	
107	Mini-high platform for level boarding of at least 1 reserved compartment per long distance train with boarding ramp		★ Non-Negotiable	
108	ATR boarding ramp solution to be tested for high floor Type 3 buses at bus terminals in addition to mini-high BRT styled multi-height boarding platform		★ Non-Negotiable	
J	VEHICLE			
J01	Minimum clear width of entry to be 36" / 915 mm to account for diverse mobility aids		★ Non-Negotiable	
J02	Multimodal safety information shall be provided		★ Non-Negotiable	
J03	Inclusive <u>first aid kit</u> and crisis rations / supplies shall be provided in a designated space communicated via safety announcements		★ Non-Negotiable	
J04	Evacuation equipment and training must include the <u>needs</u> of passengers with disabilities		★ Non-Negotiable	
Road : NMT	Pedestrian Infra	SAC-RR Draft BE - A : 1,3-11, 17, 25,27, 31, 35 NBC-2016 IRC-103-2022 , IRC-117-2018 , IRC-056-2011 ,		<u>15 A - HG-2021</u>

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
А	PAVEMENT / FOOTPATH		,	
A01	Elevated pavement of 150 mm on both sides of finished road to be provided where traffic speed is > 15 km/hour (and if need be can be reclaimed from the carriageway / parking). One-side footpath may be permitted only where RoW < 10m	IRC-103-2022 - 6.2	★ Non-Negotiable	
A02	Pavement to demarcate clear width of 2 m wide walkway to ensure 2 wheelchairs can pass each other. (ISA symbol marking at start and end can reinforce lane usage). Transverse slope of this pedestrian zone to not exceed 2% for wheelchair user safety. Surface of the pavement to be smooth (and uniform in colour and material) but non-slip achieving PTV ≥ 45 when wet. Any gratings / storm water drain inlets, even if flush, should be perpendicular to direction of travel to prevent blind pedestrians' cane or wheelchair's casters from getting caught in the gaps.	IRC-103-2022 - 6.2.1	★ Non-Negotiable	
A03	Walkway to be devoid of obstructions for 2.4 metre clear height - tree branches should be routinely trimmed to ensure safety for blind pedestrians.	IRC-103-2022 - 6.2.1	★ Non-Negotiable	
A04	Where there are many building entrances cutting across the footpath, a seamless continuous pavement will be preferred to kerb cuts. Ramped access for vehicles can be provided only before and after the pavement walkway. Tactile warning of contrasting shade should indicate vehicular crossover zones	IRC-103-2022 - 6.2.1	★ Non-Negotiable	
A05	Contrasting tactile guiding path must be provided when footpath exceeds 4m, on the walkway side closer to the carriageway	IRC-103-2022 - 6.2.5	★ Non-Negotiable	
A06	All street access control bollards of at least 800 mm height must be placed apart with no less than 900 mm and no more than 1200mm clear width to be able to admit wheelchairs while blocking auto-rickshaws. Care should be taken during installation to factor in other potential barriers at the pavement boundaries like trees, sign boards and electricity boxes. For pedestrians with low vision, bollards should contrast visually (factoring in colourblindness and night time use) with the surface of the pedestrian circulation path and with other background colours. 6" band yellow prismatic retroreflective strips must wrap around the top and bottom of each non-security bollard located approximately 2" from the top of the bollard, AND approximately 12" from the bottom of the bollard. Where the pavement meets the carriageway, whether flush or dropped kerb, the bollards must be installed in the 300 mm setback from pavement edge where the 560-600 mm depth full width tactile warning strip starts. Tactile warning pavers (with minimum luminous contrast of 70%) must be used as warning strips near all locations on the footpath with conflicting uses like driveways - especially if tabletop crossings to property entrances. Where bollards are placed parallel to the carriageway to prevent mounting by vehicles, they must be at the edge or immediately after the kerb stone. In case of designated parallel parking the bollards may be set back 460 mm from the kerb edge.	IRC-117-2018 - 3.2.20	★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A07	Kerb Ramps transitioning to street level shall have a gradient not steeper than 1:15 with width not less than 1200 mm and flared sides with gradient not steeper than 1:10 while preventing water pooling. If a landing is not provided, clearance of at least 800 mm on the footpath behind the kerb ramp. A contrasting tactile warning of at least 300 mm width (or more depending on location vis a vis line of travel) must stretch across the entire width where ramp meets road. Dropped kerbs should be provided at parking, crossings, bus shelters, IPT stands and at least every 100 m on long roads to prevent long detours for wheelchair users. If there is a kerb ramp on one side of the roadway, there should also one be on the other to prevent pedestrians being 'stranded' on the roadway itself.	IRC-103-2022 - 6.7.1 NBC-2016 B-2.3 IRC-117-2018-3.2.2 ADA-§406	★ Non-Negotiable	
В	CROSSINGS & INTERSECTIONS			
B01	At-grade controlled crossings (whether Zebra, Pelican or Puffin signalled) need to provide level access on both sides of the road of the same width as the crossing itself (i.e. 2000 mm minimum) whether by dropped kerb or raised, 'tabletop' crossing. Medians with width not less than 1500 mm in the middle and contrasting tactile warning demarcations, must either be cut through and levelled with the street or have a returned kerb ramp to the raised median in case the road is very wide. Bollards may be spaced to permit wheelchair users but deter motor vehicles.	IRC-103-2022 - 6.7.1	★ Non-Negotiable	
B02	Well-lit grade separated crossings are to be resorted to only when unavoidable and whether overpass or underpass must be enclosed, 1:20 ramped with contrasting, dual height, heat-insulated railings and landings with at least 1500 mm length (and in case of change in direction, 1500 mm width) clear wheelchair navigation space at every rise of 2.5m. Raised benches of 550 mm straight seat height with 890 mm upright backrest and armrests would help elderly / chronically fatigued to rest. Bollards may be spaced at either end to permit wheelchair users but deter motor vehicles.	IRC-056-2011 - 12	★ Non-Negotiable	
В03	Audio Visual traffic signals locations must be mapped with locations released as open data for smartphone guided wayfinding. Timings must factor in atypical crossing times. Pedestrian On demand accessible pedestrian signals (APS) should further provide vibrotactile information to benefit deaf-blind pedestians with pushbutton controls accessible by wheelchair users.	HG-2021-3.8.5 ADA PROWAG 2023	 Non-Negotiable Audio & Clicking □ Desirable / Recommended Vibrotactile option 	
В04	Street name boards must include a standard placement of enhanced Navilens type QR code for pedestrians with low vision	IRC	★ Non-Negotiable	
Road : Taxis , IPT				
A01	Licensing for 4 wheeler taxis / All India permit holders to require vehicles to have trunk capacity to fit an IS <u>7454</u> :2024 standard folding wheelchair. / rollator / walker		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A02	Commercial driving license acquisition to be conditional to drivers being 'trained to proficiency' in disability assistance via tests based on self-guided multimedia tutorials		★ Non-Negotiable	
A03	Discriminatory provision 7.6a in <u>advisory for licensing</u> of on demand aggregators to be removed as this exclusionary provision is targeted towards disability characteristic alone. 7.4c to include discrimination on the basis of disability.		★ Non-Negotiable	
A04	Assistance to disabled passengers in locating and use of taxi must be provided without any additional charges - advance intimation of such specific needs shall not be a cause for refusal of service.		★ Non-Negotiable	
A05	Post app aggregator market disruption and resulting absence of a designated taxi vehicle model like <u>London's Black Cab</u> or the Kaali Peelis, taxi aggregators must offer a <u>proportion of wheelchair accessible vehicles</u> (WAVs) to ensure equivalent service.		★ Non-Negotiable	
A06	Demand-responsive aggregators to provide vehicle choice app filters for wheelchair users to specify whether seat transfer is possible or own wheelchair travel with tie-downs and ramp / lift required.		★ Non-Negotiable	
A07	E-autorickshaw taxi policy (including share auto and shuttle buggies) must include <u>standardised design</u> on lines of <u>Kickstart Gati</u> or <u>EzyMov</u> to allow wheelchair boarding and safe travel <u>current policy only outlines livelihood scheme</u> for family members of persons with disabilities.		★ Non-Negotiable	
Road : Adapted Vehicles Etc				
A01	GST rationalisation from 18% to 5% for adapted car		★ Non-Negotiable	
A02	Fastag exemption migration to GNSS		★ Non-Negotiable	
A03	Frictionless default future exemption from odd-even type restrictions as essential living aid for drivers with disabilities		★ Non-Negotiable	
A04	Highways wayside amenities (Restaurants, Washrooms, Fuel Stations, EV Charging, Truckers Amenities, Medical Facility, Kids Play Area, Auto Repair/Maintenance, Village Haats) to meet specific design needs of drivers and passengers with disabilities including Changing Places Toilets.		★ Non-Negotiable	
A05	Blue Badge type QR code verifiable reserved parking sticker system to be rolled out for drivers with disabilities with potential for UDID database integration		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A06	Symbol standardisation specific to accessible parking in India is required.		★ Non-Negotiabl	
A07	Electric vehicle registration plate requires a more readable design.		★ Non-Negotiabl	
A08	<u>Driving license</u> SOP for persons with disabilities for <u>frictionless experience</u> at RTO offices		★ Non-Negotiable	
A09	Electric charging infra to be universally designed for disabled drivers and must include power wheelchair charging		★ Non-Negotiable	
Road : Special Vehicles	 Ambulance & Fire to carry <u>scoop stretcher</u> and cervical collar to reduce spinal cord injuries due to improper post trauma handling Police / Prison Van - Low Floor with ramp, pneumatic kneeling, foldout step 		★ Non-Negotiable	
Road : Bus Shelter	 Pavements to be blended with bus shelter with LF bus level boarding platform with Kassel Kerb base Marking - bus lane, ISA etc and docking flag 	SAC-RR Draft BE - B (Part B FMC specs being incorporated)	★ Non-Negotiable	
Road : Bus Terminals / Depots	Terminals must be equipped with additional inspection pits for low floor buses as well as multilevel boarding platforms with docking rubber platform gap fillers and fold out ramps to permit wheelchair boarding of buses whether LF, SLF, HF or truck chassis high floor		★ Non-Negotiable	
Road : Type III Bus-Long Distance	New non-low floor buses may be permitted to operate with ARAI-certified wheelchair lift and onboard aisle chair if the luggage is stored at the base.		★ Non-Negotiable	
Road : Type 1 & II (City & Inter-City) Buses				
A	DOORWAY / GATE / LEVEL CHANGES		,	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A01	Max 400 mm floor height (GFH) w/o kneeling, Step-Free, Level Entry Door 1200 mm wide (at least 900 mm clear after counting flaps and railing) with immobile (achieved by inswing door) handrails' knuckle clearance of 38 mm across full length), contrast / lit edges and av indicator for door opening and closing and failsafe	* AIS-153 : Anx V - 3.6.4 * HG-2016 11.7.1.2 / 21 6.3.1.2.2,	★ Non-Negotiable All new procurement including mini buses	<u>Done</u>
A02	At least 60 mm kneeling via air suspension on entry/exit side severally & collectively with failsafe	* AIS-153 : 2.8 * AIS-153 : Anx V - 3.11.2 * UBS II : 7.3	★ Non-Negotiable	<u>Done</u>
A03	Rear entrance wheelchair ramp to extend to 400 mm level bus boarding platform specified in UBS II. Sunken type hybrid (manually wrap over + retractable automatic cassette ramp below footboard), for wheel chair of PwDs, fitted on floor at gate in front of PwD seat anchorage. Load capacity 300 kg mm, anti side roll edge colour contrasted. Usable width of 800 mm (920 mm will facilitate crutch users) usable length 1200 mm. AIS bus ramp slope contradictory with AIS requirement of 'moving freely and easily' for unassisted, safe boarding - Maximum slope should not exceed 1:6. Pictographs on ramp must caution use of seat belt and anti-tip wheels.	* AIS-153: Anx V - 3.11.4.1.3 * AIS-153: Anx V - 3.6.4.1 * UBS II: 14.8 * MOUD 2012 NUTP advisory * MoRTH 2021 draft 10.4.1	★ Non-Negotiable ■ Desirable / Recommended Hybrid ramp in view of imminent card swipe fare box conductorless travel	Done (update)
A04	Front entrance height of first step from ground to not exceed 250 mm says bus code - with fold out / retractable step this should be 6" / 150 mm for ambulant disabled	* AIS-153 : Anx V - 3.1	★ Non-Negotiable	<u>Done</u>
A05	Passenger safety system - allowing bus motion on electro pneumatically controlled entry / exit gates doors closing and doors opening only when the bus is stopped	* <u>UBS II : 14.1.d</u>	★ Non-Negotiable	<u>Done</u>
A06	Anti-skid Interior steps in case of low entry bus to be 120-250 mm high with 200 mm depth with 50 mm edge demarcation contrast and fully coloured tread of first and last step. Colour contrasted stanchions to be aligned with steps and seats for fall prevention. Elevated seat platforms to be similarly edge demarcated.	* AIS-052 : 2.2.5	★ Non-Negotiable	
В	SEATING			
B01	At least 1 front-facing Wheelchair space close to the driver must be not less than: 1300mm measured in the longitudinal plane of the vehicle, 750mm measured in the transverse plane of the vehicle, 1500mm	* AIS-153 : Anx V - 3.6 * AIS-153 : Anx V - 3.8	★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
	measured vertically from any part of the floor of the wheelchair space. Backrest with seat belt anchorage, stoppers, WTORS and handrail, communication button at 700-1200 mm height.	* CMVR -2022 GSR-797(E)		
В02	At least 4 Priority seats with seat belts for other PRM / medically disabled (with tactile pictogram) near driver (2 for Midi / Mini) with movable armrests, aid securement, tactile pictogrammed high visibility communication control at 700-1200 mm height.	* AIS-052: 2.2.19.1 - 5 * AIS-153: 3.2 * CMVR -2022 GSR-797(E)	★ Non-Negotiable	
В03	Space for guide dog	* AIS-153 : Anx V - 3.2.2	Aspirational	
1C	SUPPORT, SAFETY & FALL PREVENTION			
C1	Handrails & stanchions & handholds - boarding assist till seat. Immobile, high visibility, colour contrasting and slip resistant.	* AIS-052: 2.2.19.4 * AIS-052: 2.2.9 * AIS-046 * AIS-153: Anx V - 3.4 * CMVR -2022 GSR-797(E)	★ Non-Negotiable	
C2	Gangway min 700 mm width	* <u>UBS II : 15.7.2 b</u>	★ Non-Negotiable	
C 3	Level floor anti-skid without trip hazards (WTORS), colour contrasted demarcated wheelchair space, priority seating. If low entry bus, internal steps to have tactile warning at both ends and edge colour contrast for every step. Ditto if some seats are on raised platforms. These seats and those opposite doors to have seat belts and vertical stanchions.	* AIS-153 : Anx V 3.11.4.1.6	★ Non-Negotiable	
C 4	Bilateral under run protection - (front & rear depending on design)	*AIS-052 : 2.2.20 / 2.2.21 etc	★ Non-Negotiable	
D	COMMUNICATION / PIS / ITS / ICT			
D01	GPS + Transponder Automatic Vehicle Location Realtime Text Feed via GTFS - Flex.	* <u>AIS-153 - 2.18</u> * <u>AIS-140</u>	★ Non-Negotiable Avas	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
	Multimodal (audio + visual + phone based text feed of information of destination display, route, bus identification & homing transmission / beacon system for blind / deafblind, arrival announcements, emergency alerts etc. Acoustic Vehicle Alerting System (AVAS) for electric / Quiet Road Transport Vehicles	* AIS-173	■ Desirable / Recommended On Board homing system for blind - phased implementation ■ Aspirational Announcement text feed for deaf-blind	
D02	Wheelchair Boarding Driver Communication button 800-1300 mm high adjacent to door, Tactile pictograms with high visibility. Message to be received by driver separate from other call buttons.	* AIS-153 Anx V - 3.3.4 * CMVR -2022 GSR-797(E)	★ Non-Negotiable	
D03	Signage / Tactile Pictogram on wheelchair accessible door and at wheelchair docking space floor and backrest, and outside bus indicating wheelchair space location. Ditto dashboard and ramp.	* AIS-153 : Anx V - 3.7 * CMVR -2022 GSR-797(E)	★ Non-Negotiable	
D04	High visibility Night Stop on demand request communication button shall be fitted at an ideal height of 1.2 meter (800-1500 mm) on all stanchions. Message to be received by driver separate from other call buttons.	* AIS-153 : Anx V - 3.3 * CMVR -2022 GSR-797(E)	★ Non-Negotiable	
D05	App integration with GTFS Pathways, SoundScape, NextStop,	* RPDA 2016 * RPDA 2016 * GIGW 2.0 * IS 17802 Parts	★ Non-Negotiable GPS app to indicate LF bus, bus shelter accessibility vis GTFS Aspirational	
E	POLICY UPDATION			
E01	In keeping with ongoing <u>UNECE R-107</u> amendments, the bus body code needs to be synced to insert the missing words from <u>R-107's 2.1.4</u> to AIS-052's 1.1.74 so that it reads: 'Low-floor vehicle' is a vehicle of Type I, II or B in which at least 35 per cent of the area available for standing passengers (or in its forward)		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
	section in the case of articulated vehicles, or in its lower deck in the case of double-decker vehicles) forms an area without steps and includes access to at least one service door.			
E02	Apart from Group B minibuses required to be low floor, microbuses and e-carts must also be low floor with a boarding height of 340 mm or lower.		★ Non-Negotiable	
E03	UBS to include specifications for hilly area buses and electric buses which must be born ultra low floor irrespective of end use class or type		★ Non-Negotiable	
E04	Rural area option of Mega-Bus type solution to be standardised		★ Non-Negotiable	
E05	Low Floor bus chassis to be promoted to utilise vast capacity of bus body manufacturers in the transition to low floor city and inter city buses		★ Non-Negotiable	
Road : Ropeways				
A	PLATFORM & BUILT INFRA			
A 01	Horizontal platform gap between cabin door opening floor edge and platform edge shall not be greater than 1 inch (25.4mm). The height of the cabin floor to the platform shall be within +/- ½ inch (+/- 12.7mm). Additionally to cater for operational variation, platform / vehicle / system devices or bridge plates shall be provided for independent boarding(1220mm x 760mm)	OITAF standards 2024	★ Non-Negotiable	
A02	Standstill / stationary boarding with no penalty for increased dwell time		★ Non-Negotiable	
A03	Specialised rescue equipment availability, training videos, disseminations and drills		★ Non-Negotiable	
В	GONDOLA CABIN & CHAIR			
B01	Folding seats may be provided alongside wheelchair space with minimum clear floor of 48 inches by 30 inches (1220 x 762mm) - priority space / seat to be demarcated and signs provided		★ Non-Negotiable	
B02	Wheelchair tiedowns should ensure no trip risk and have stickered multimodal instructions and safety information		★ Non-Negotiable	
B03	Operable parts like help button etc shall be at a height of 34 - 48 inches (865 -1220 mm) above finished floor level		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
B04	Restrain bar height limits: ≥ 8 in (204mm)		★ Non-Negotiable	
B05	Seat surface depth range: 17 in (432mm) - 20 in (508mm)		★ Non-Negotiable	
B06	Seat back height range: 14 in (356mm) - 19 in (483mm)		★ Non-Negotiable	
B07	Seat to back gap range: 3 in (76mm) - 6 in (152mm)		★ Non-Negotiable	
B08	Seat surface to seat back angle: 98°		★ Non-Negotiable	
В09	Seat surface tilt angle range: 7° - 12°		★ Non-Negotiable	
B10	Edges to be contrasted and rounded or padded for safety of passengers needing assistance		★ Non-Negotiable	
С	POLICY UPDATION			
C01	Policy gap of standardisation of Parvatmala / ropeway terminals and gondola design to be rectified and specific mention of ropeways to be specifically mentioned in RPWD rules		★ Non-Negotiable	
C02			★ Non-Negotiable	
Rail : Long distance / Suburban				
A	PLATFORM			
A01	Trains must not extend past platforms or length of platforms to be increased to 600 m to accommodate 24 LHB coach rake with corresponding signal position change.		■ Desirable / Recommended	
A02	Slope of ramped end of platforms to be 1:21 with caution sign		★ Non-Negotiable	
A03	Height of platform to be increased to near level boarding		★ Non-Negotiable 920 mm existing platforms (840 mm on case to case basis) □ Desirable / Recommended 1200 mm new stations w/o curves	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A04	Platform cross slope to ensure wheelchair does not veer towards the tracks		★ Non-Negotiable	
A05	Trolley path to be levelled for RPF assisted wheelchair crossing - caution sign		★ Non-Negotiable	
A06	Interplatform transfer (IPT) via 1:20 sheltered ramped <u>FOB</u> or underpass / subway	Adapted RDSO/WKS/2013/002	★ Non-Negotiable	
A07	Mechanised stair-climbing wheelchair (EvacuChair) for existing FOB with only steps / lift		★ Non-Negotiable	
A08	Contrasting TWSIs (70% LRV) flush from platform edge for 600 mm width	ADA	★ Non-Negotiable	
A09	Contrasting TGSI (70% LRV) accessible path		★ Non-Negotiable	
A10	Non-slip, non-reflecting station floor with SRV (PTV) of 36+ whether dry / contaminated	FMC to RB	★ Non-Negotiable	
A11	Lifts to be provided as additional IPT accessibility solution, not escalators		Desirable / Recommended	
A12	Multimodal announcements via app and SLI avatar		★ Non-Negotiable AV default, number of coaches, location of SLRD sequence	
A13	Portable boarding ramp + aisle chair (Guntur model) + <u>Trolley Steps</u>	FMC to RB	★ Non-Negotiable	
A14	Free wheelchairs with assistants	DHC PIL	★ Non-Negotiable	
A15	Seating bench with single edge arm rests at each end		★ Non-Negotiable	
A16	Booth / counter design default of dual counter height	CMRL model	★ Non-Negotiable	
A17	Bollards to be placed 1000 mm apart	DBE - <u>B1</u>	★ Non-Negotiable	
A18	Location / order of SLRD / coach for disabled to be rationalised and announced with total number of coaches.		★ Non-Negotiable	
В	COACH			
B01	Wall bracket foldable boarding ramp + aisle chair (VB model)		★ Non-Negotiable	
B02	Door clear width min 920 mm		★ Non-Negotiable All new coaches	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
В03	Aisle width min 800 mm (instead of current VB 450)	UIC	★ Non-Negotiable All new coaches	
B04	Chair cars end rows to allow wheelchair stowage 2x2 configuration	FMC to RB	Desirable / Recommended	
B05	WTORS for VB	FMC to RB	★ Non-Negotiable	
В06	Fixed seat plug point for o2 concentrator reliable 240 V power w/o night throttling	FMC to RB	Desirable / Recommended	
B07	Fixture height and standardised layout	FMC to RB	★ Non-Negotiable	
В08	Emergency communication redesign		Desirable / Recommended	
B09	Automated retractable steps / ramp for (near) level boarding		Aspirational	
B10	All Toilets to have grab bars		★ Non-Negotiable	
B11	SLRD Toilet bilateral transfer		Desirable / Recommended	
B12	SLRD panic button at wheelchair height for trespass / encroachment		Desirable / Recommended	
B13	Between rail car barrier gates to prevent blind people falling onto tracks		★ Non-Negotiable	
B14	Coach for disabled in suburbam trains (equipped with evacuation ramp) to emit homing audio signal for blind		★ Non-Negotiable	
Rail - Metro / RRT / LRVs				
A	PLATFORM			
A01	Level boarding via roll out ramp + platform assistant		★ Non-Negotiable	
A02	Gap reduction via rubber platform fillers that can withstand wheelchair weight		★ Non-Negotiable	
A03	Contrasting TWSIs (70% LRV) flush from platform edge for 600 mm width even if PSDs present		★ Non-Negotiable	
A04	Contrasting TGSI (70% LRV) accessible path		★ Non-Negotiable	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
A05	Audio Induction Loop / Auracast		Aspirational	
В	COACH			
B01	Emergency communication device redesign	FMC to RB	★ Non-Negotiable	
B02	Evacuation ramp for PRM		★ Non-Negotiable	
В03	Safety evacuation video and drill QR code		★ Non-Negotiable	
С	POLICY UPDATION			
C01	Policy gap of standardisation of metro station and coach design to be rectified		★ Non-Negotiable	
Air:				
Α	AIRPORT			
A01	Universal Design of infra - <u>dual height counters</u> , kiosks, signage, surface contrast and safety, waiting room, dorms, parking, drop off points, ramped level change etc	SAC-RR Draft BE - A	★ Non-Negotiable	
A02			★ Non-Negotiable	
A03	Aerobridge wheelchair privacy area & rollout bridging ramp		★ Non-Negotiable	
В	CRAFT			
B01	Aisle chair on board,		★ Non-Negotiable	
B02	Movable aisle chair arm rest to be enabled		★ Non-Negotiable	
В03	Designated accessible seat to have armrest control		■ Desirable / Recommended	
B04	Entertainment to offer AD, SDH, captions, ISL		★ Non-Negotiable	
B05	Sling / Hoist for transfer		★ Non-Negotiable	
B06	Own wheelchair travel reform		Aspirational	
B07	Toilet Type A to be provided in aircraft allowing wheelchair transfer from either side		Aspirational	
В08	AAC Braille Communication board for deaf-blind etc		Desirable /Recommended	

MODE	REQUIREMENT	REFERENCE	CATEGORY	RULE LINK
В09	Cupboard to store wheelchair and mobility aids to be reclaimed & ordered in new aircraft		★ Non-Negotiable	
С	POLICY UPDATION			
C01	2022 BCAS screening guidelines to be rolled back to pre-Covid sector-approved document		★ Non-Negotiable	
C02	CAR to be rolled back to pre-Ranchi version removing fit to fly provision		★ Non-Negotiable	
C03	Gate checked mobility aid SOP to be standardised for airlines		★ Non-Negotiable	
C04	SOP for safe stowage of in cabin assistive aids to be standardised for airlines		★ Non-Negotiable	
Water:				
A01	Extra long accessible gangways from floating docks and intermediate ramps	Rule 15, IWAI SOP, Brief	★ Non-Negotiable	
A02	Type-1 life jackets to be reserved on ferries for PRM		★ Non-Negotiable	
A03	5% cruise rooms to be universally designed with Type A toilet		★ Non-Negotiable	
A04	New houseboats corridors, doors to be universally designed with 1 Type A toilet. Lower deck to be self-sufficient.		★ Non-Negotiable	
A05	Rollaramps for jet motorboats which require both up and downward ramp into boat		★ Non-Negotiable	
A06	Tour boats to have foldable seats to make wheelchair space		★ Non-Negotiable	
В	POLICY UPDATION			
B01	Policy gap of standardisation of water metro / taxi / cruise vehicles and jetties / piers design to be rectified and water transport to be specifically included in RPWD Rules		★ Non-Negotiable	
Others:				

ACRONYMS / GLOSSARY

- AAC = <u>Augmentative and Alternative Communication</u> all of the ways that someone communicates besides talking
- AD = Audio Description of films for blind

- BCAS = Bureau of Civil Aviation Security
- CAR = Civil Aviation Requirement
- Carriageway is the space on roads for vehicles to move
- Changing Places Toilet = larger toilet spaces that have the right equipment for eg a changing bench and privacy screen, designed to support disabled people who need assistance or have more complex toileting needs.
- CTC = Centralised Traffic Control
- DAA = Deliver At Aircraft
- ETD = Explosive Trace Detector
- Evac Chair = Evacuation solution for smooth stairway ascent and descent during an emergency when lifts cannot be used
- FREMEC = Frequent Travelers' Medical Card
- GFH = Ground to Floor Height the distance between the road surface and the bus's floor level.
- GTFS = General Transit Feed Specification, a standardized format for public transportation data
- GNSS = Global Navigation Satellite System potential replacement for Fastag toll payment system
- GST = Goods and Services Tax, is an indirect tax imposed on the supply of goods and services
- HF = High Floor (used primarily for buses and is maximum permissible to be called a bus with 2 entry steps after footboard. Anything with 3 steps after a footboard is a truck)
- IATA = International Air Transport Association global airline trade regulatory body
- ISA = International Symbol of Access is a white silhouette of a person in a wheelchair on a blue background, and is a universally recognized symbol of accessibility, not disability
- ISL = Indian Sign Language
- LF = Low Floor (used primarily for buses with no entry steps after footboard)
- LHB = Linke-Hofmann-Busch coaches, are modern coaches replacing the earlier models of rail cars
- MAAS = Meet and Assist Services
- OOG = out of gauge 'oversized' baggage wheelchair etc in this case
- PPHPD = Passengers Per Hour Per Direction

- PRM = Passenger with Reduced Mobility
- PSD = Platform Screen Door
- PTV = Pendulum Test Value gold standard of measuring <u>surface slipperiness</u>. Higher PTVs or slip resistance values (SRVs) indicating better slip resistance. These values are dynamic and vary based on surface and contaminant..
- PwD = Person with Disability
- ROW = Right of way (Right of way is the total width of the road taken from compound wall/edge)
- RPwD / RPDA = Rights of Persons with Disabilities Act 2016
- RTO = Regional Transport Office administered by the State Governments maintaining a database of drivers and vehicles.
- SDH = Subtitles for Deaf and Hard of Hearing
- SHA = Security Hold Area
- SLF = Semi Low Floor (used primarily for buses with 1 step after footboard)
- SLRD = Second Class Luggage cum Guard's unreserved railway compartment exclusively for passengers with disabilities with facilities like wider doors, berths, and lavatories to accommodate individuals with mobility challenges.
- SSR = Special Service Request three- or four-letter codes used by airlines and travel agencies to communicate special requests for passengers, such as special meals, wheelchair assistance, or other needs.
- TGSI = Tactile Ground Surface Indicators. (Specialized paving materials designed to provide tactile feedback to visually impaired individuals, assisting them in navigating environments safely and independently. Warning / Attention TGSIs are raised study or domes, often described as truncated domes, which alert people to hazards such as stairs, ramps, and platform edges or change in direction. Directional TGSIs are raised bars or strips that guide individuals along a path or towards a specific destination.
- Type A vs Type B Toilet Both designed for wheelchair users, Type A is centrally aligned with swivel grab bars allowing wheelchair transfer from left and right. Type B toilet is located at a corner and allows transfer only from one side.
- UBS = Urban Bus Specifications II released by MOHUA in 2012
- UDID = Unique Disability ID
- ULE-BT = Ultra <u>Low Energy BlueToot</u>h devices used for wayfinding
- WCHR = SSR: Passengers who can use the stairs and walk within the aircraft cabin, but need a wheelchair for assistance on the ground, especially for navigating the ramp to the plane.
- WCHS = SSR: Passengers who cannot use the stairs and need a wheelchair to get to and from the aircraft, but can walk within the cabin to their seat.
- WCHC = SSR: Passengers who are completely immobile and require a wheelchair to/from the aircraft and must be carried up/down the steps and to/from their cabin seat.

WTORS = Wheelchair tiedown and occupant restraint system for	safety during transport	