UK Government

BASIIC
Building Accessible, Safe & Inclusive Indian Cities

NIUA
National Institute of Urban Affairs

Integrated Toolkit for

Development of Inclusive Urban Environment

This document contains **simplified sectoral checklists for common public projects** including residential, public buildings, educational buildings, public spaces/parks development, street development, and Buildings for large gatherings. The document promotes **an inclusive approach to planning, design and implementation of all public projects**, resulting in creation of Inclusive and Universally Accessible Urban Environments. It aims at facilitating ease of use and ensures compliance with accessibility guidelines and standards set forth by the **Ministry of Housing and Urban Affairs**. The checklist is prepared by Building Accessible, Safe and Inclusive Indian Cities" (BASIIC) Programme (Supported by FCDO, UK Government) at **National Institute of Urban Affairs (NIUA)** as a ready reckoner for the urban practitioners.

Lead Researcher:
Ms. Kanika Bansal

Supported by:
Mr. Utsav Choudhury
Prof. Gaurav Raheja (IIT Roorkee)

Graphics
NIUA Design Team

Published by
National Institute of Urban Affairs
Government of India

Published in 2021.

UK Government

BASIIC
Building Accessible, Safe & Inclusive Indian Cities

NIUA
National Institute of Urban Affairs

Integrated Toolkit for

Development of Inclusive Urban Environment

This document contains **simplified sectoral checklists for common public projects** including residential, public buildings, educational buildings, public spaces/parks development, street development, and Buildings for large gatherings. The document promotes **an inclusive approach to planning, design and implementation of all public projects**, resulting in creation of Inclusive and Universally Accessible Urban Environments. It aims at facilitating ease of use and ensures compliance with accessibility guidelines and standards set forth by the **Ministry of Housing and Urban Affairs**. The checklist is prepared by Building Accessible, Safe and Inclusive Indian Cities" (BASIIC) Programme (Supported by FCDO, UK Government) at **National Institute of Urban Affairs (NIUA)** as a ready reckoner for the urban practitioners.

1. Checklist for Residential Development

Design Elements	Recommended Universal design considerations
General	• Design should ensure visit ability of the complex • Flexibility in unit plan to support transformation to accessible units • Large Housing complex should contain accessibility facilities and inclusive features like on-call doctor, facility wheelchair, inclusive play spaces etc • Provisions like access card reader or other security sensors to be mounted at 1200 mm height
Exterior Spaces	• Provisions leveled and even walkway for easy access in Driveway/drop-off/parking area to individual's house • Hard, non-slippery and evenly surfaced access route • Access route to be free from obstructions and sudden level changes to be avoided. Provision of tactile pathway to be provided. • Ramps with handrails/ Platform lifts/ elevators to be provided at any level change, as applicable • Provisions for adequate and uniform illumination of all exterior spaces • No level difference to access to common spaces such as garbage chute and meter rooms
Accessible Parking	• The total number of Barrier Free parking slot will be 1/50 up to a total number of 100 PCUs, beyond which there need to be 1in 200 thereafter • Bay Size 3600 mm (including 1200 for wheelchair assistive devices like rollators, etc. circulation) x 5000 mm • Bay located within 30 M of accessible/ main entrances • Designated parking space for Adapted scooters / tricycles • Provision of footpath (1200 mm wide) behind car parking for Wheelchair movement • Provision of Kerb ramps (1800 mm wide) in footpath behind the parking at appropriate places • Tactile warning tiles with stop tiles near obstacles and kerb ramps in access footpath • No landscapes (like tree branches and other elements) in the walkway to pose obstruction to persons with vision impairments • Non-Slippery Surface Material (no loose material like sand/gravel etc
Lifts	• Adequate number of lifts to be provided for all multistoried buildings • Level and non-slip surface of lift lobby • Each floor number to be clearly indicated in lift lobby to ease way finding • Adequate size of lift as advised in Harmonised Guidlines to be provided
Corridors	• Minimum corridor width of 1500 mm except wherever maneuvering space for wheelchair is required • Minimum width for accessible routes to be 900 mm
Staircase	• Clear width of at least 1200 mm • Uniform steps of min width 300 of tread and 150 mm height of the riser • No curved or configured steps • Warning tactile tiles at start and end of each flight • Non slip nosing strips with permanent contrasting color- min 50 mm wide • Maximum 25 mm splay backward • Handrails on both sides with grab rails at two levels • Braille encryption at beginning and end of the hand rail
Wayfinding	• Provision of Wayfinding Map in tactile and audiovisual formats at the main entrance • Information on list of apartment owner and wayfinding schedule can be provisioned in tactile formats • Egress plan to be provided in case of emergencies

Accessible Unit Design	
Entrance	• Covered and well-lit entrances • Doorbell switches height to be 1200 mm from finished floor level • Technological solutions to provision for keyless door to be incorporated • Platform/ space of 1500 mm x 1500 mm in front of each entrance • Provisions for Flushed door mats • Clear width of the door should be 900 mm
Living Room	• 1500 mm turning in space to be provided near all entry points to living rooms • Living-dining combination to be provided • Clear floor space for wheelchair at least 900 x 1200 mm in front of all fixtures
Washroom	• Accessible washroom directly accessible from living room of size 2000 x 2200 mm • Entry minimum 900 mm wide • Provisions of accessible features like grab rail, shower seat, along with level type faucets • Wall hung basin with knee clearance space • Provision of emergency alarm cord with operable height range • Level type door lock at two heights (between 700-900 mm) • Slip resistant flooring
Kitchen	• Maneuvering space of 1500 mm between the counter and opposite walls • Anti-slippery floor surface to allow for easy wheelchair maneuverability • Counter tops height between 750-800 mm with clear knee space (900 mm wide and 480 mm deep) • Round/chamfered edges for Counter tops/slabs • Special hydraulic hardware system (like wall pull down systems/ one touch wall cabinet) in kitchen cabinet design • Lever types faucets to be installed for sinks
Bedroom	• 1500 mm turning space for wheelchair at least near all doors • Bedroom closet to have a clear floor space of at least 900-1200 mm • Clothes bar at height of 1200 from the floor • Wall hook installed at a height of 1100 mm -1300 mm • Shelves installed at 300 mm-1150 mm from floor surface
Others	• Knurled surface door handles • Door to balcony with atleast clear width of 900mm • Bright colored motif at eye-level for glass door • Contrasting color band for any level difference • Top handrails for all glass railings • Controls and operating mechanisms to be placed between 900-1200 mm and located at a minimum of 600 mm from any corner • Automatic light controls/ motion sensor lights wherever possible

2. Checklist for Development of Public/Recreational Spaces

Design Elements	Recommended Universal design considerations
General	• Integration with Public Transportation system • Adequate Ramps with Gentle Slopes • Provision of adequate and uniform illumination • Provision of shaded seating space at appropriate places • Provision of SOS features like medical emergency systems, facility wheelchair, and defibrillators etc
Entrance to public spaces	• Provision of well-defined and covered (for weather protection) for entrances of public spaces along with designated signage • Obstruction free Entrance (Preferably step free entrance) • Provision of contrasting colour schemes and nosing for Steps or plinth edges • Provision of tactile Guiding blocks in desired/recommended manner to all important locations and amenities • Provision of pedestrian gate with clear width 900mm (at least) • Provision of Ramps with both side handrails of gradient 1:12 (for plinth level, wherever it's a stepped entrance)
Sidewalks	• Use of non-slippery materials for floor surface • Continuous along the length of the road with kerb cuts at appropriate places • Height not more than 150 mm • 1500 -1800 mm clear width (At least) • Unobstructed tactile guiding blocks for persons with visual impairment. Warning tiles around obstructions including existing tree pit/ manhole/poles. • No overhead obstructions or projections Clear headroom of 2100 mm (min)
Accessible Parking	• Adequate number of accessible car parking spaces • Bay Size 3600 mm (including 1200 for wheelchair assistive devices like rollators, etc. circulation) x 5000 mm • Bay located within 30 M of accessible/ main entrances • Designated parking space for Adapted scooters / tricycles • Provision of footpath (1200 mm wide) behind car parking for Wheelchair movement • Provision of Kerb ramps (1800 mm wide) in footpath behind the parking at appropriate places • Tactile warning tiles with stop tiles near obstacles and kerb ramps in access footpath • No landscapes (like tree branches and other elements) in the walkway to pose obstruction to persons with vision impairments • Non-Slippery Surface Material (no loose material like sand/gravel etc)
Way finding and Accessible Information	• Signages for accessible parking (signage for accessible car and adapted two-wheeler parking) ➢ at visible locations ➢ A 1000 m x 1000 mm signboard, provided at 2100-2500 mm clear height • Comprehensive wayfinding system to be easy to locate and legible • Comprehensive system of signages/maps in tactile as well as visual format • Audio Visual signages at appropriate places
Materials	• Non-Slippery Surface Material (no loose material like sand/gravel etc) • Selection considering ease of maintenance (across lifecycles) and longevity
Kerb Ramps	• Slope with gradient to be 1:10 • Flared edges to be maximum 1:10 • Strip of warning tactile blocks at the beginning and end of ramp

Design Elements	Recommended Universal design considerations
Walkways/ pathways	• Free from any obstructions • Smooth, hard and levelled floor surface • 1500-1800 mm width (for two-way movement) • 5% or =< 1:20 gradient • Provision of appropriate resting place at 30m intervals for walks more than 60m • Landscape elements (natural and built) to be integrated for shade in walkways • Manhole covers to be surrounded by tactile warning tiles • Provision of adequate and uniform illumination with high colour contrast between level surfaces and avoiding glare • Design of Tactile Guiding system at intersection as per Harmonised Guidelines • High contrast color to denote any change in level • Only gentle slopes should be maintained or provided with handrails on sides
Street Furniture	• Provisions of adequate shaded seating/resting spaces • Provisions of Seats with height 450-500mm and a backrest & handrest at 700mm height • Provision of appropriate/sheltered resting place at 30m intervals for walks more than 60m • Seating areas to be well illuminated and with clear hard paved surface in contrasting colour • Provision of Litter bins, lighting poles etc - away from the tactile pathway
Vending Machines	• Accessible from a distance of 500 mm • Vending display height 900-1200 mm • Provision of audio signals in vending machines and acoustically sound environments
Information Display Board	• Height to vary from 900-1800 mm • Warning signage for slopes, obstructions, water body to be provided at visible locations.
Bollards	• General Spacing of bollards 750mm wide and one space 900 mm wide (for wheelchair access). • Height 1000 mm • Provision of tactile tiles in the centre of the clear space between bollards • Provision of distinctly visible bollards through a contrasting colour material against the floor surface with light reflective indicators / surface • Use of Vandalism proof and high durability materials
Safety Rail	• Provision of Safety rails (800 mm high) at required places including landscape features like water elements etc.
Obstructions/ Protruding Objects	• Provision of contrasting colour of Protruding objects /obstructions
Green Areas	• Provision of Smooth, hard and levelled surface walkway for comfortable movement of wheelchair/strollers/crutches etc • Provision of Tactile (TGSIs) Tiles in the centre of the hard paved walkway • Regular cleaning of leaf litter from the hard paved walkway • Provision of Inclusive components like Play Equipment for children with disabilities, Senior Citizen corner etc. • No landscapes (like tree branches and other elements) in the walkway to pose obstruction to persons with vision impairments • Provisions of plantation scheme with minimum littering
Gratings for storm water drains	• Longer dimension perpendicular to the direction of travel • Provision of either perforated or grooves in the grating with space less than 12 mm for safe mobility or crossover by people using sticks/canes/ wheelchairs/strollers • Edges of gratings to be well concealed in the floor masonry / civil work

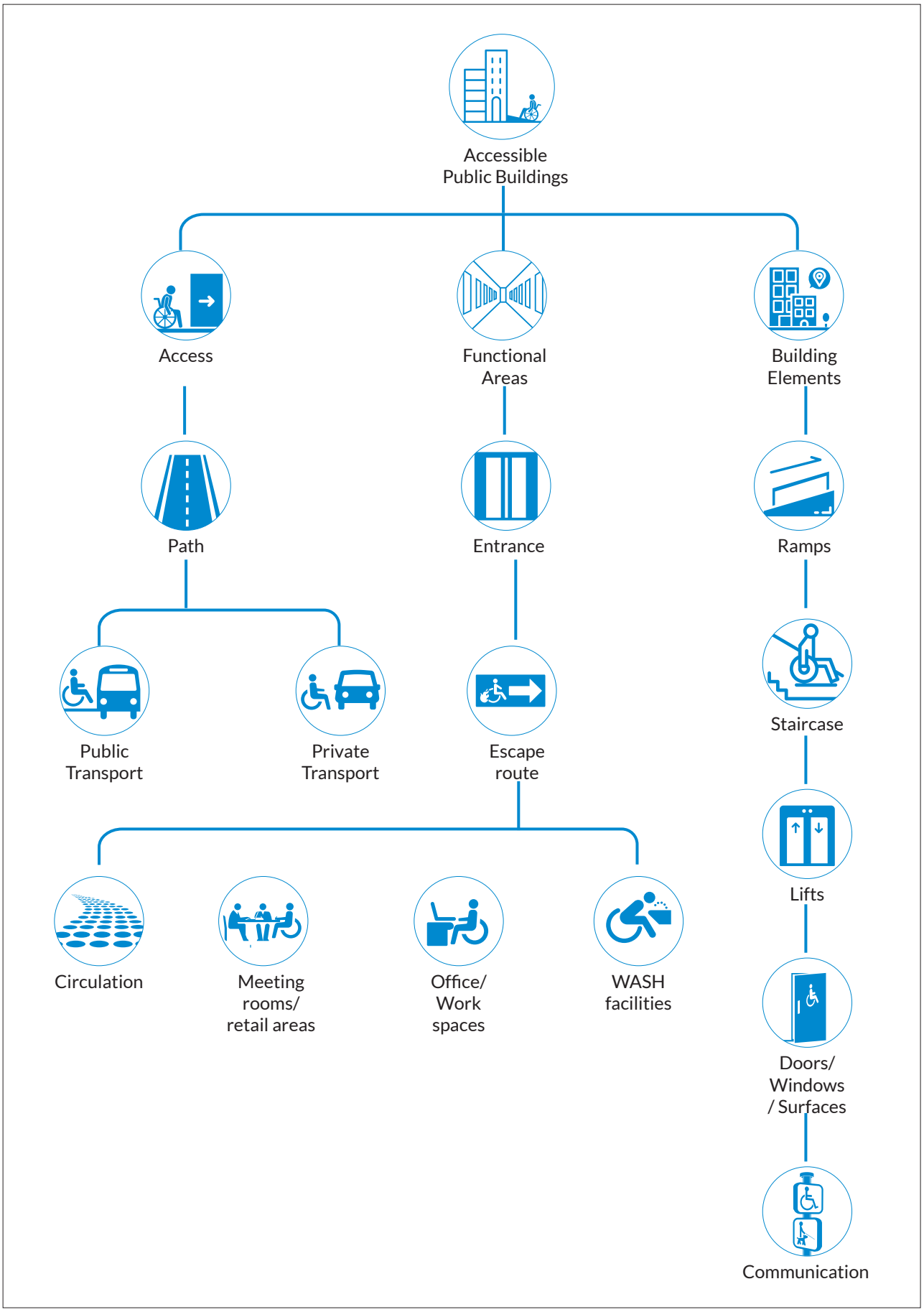
Design Elements	Recommended Universal design considerations
Public Toilets	• Visibility of Public toilets from a distance with multiple signs showing male / female and accessibility • Provision of access Ramps (1:12 or 1:14 slope gradient) with both side handrails (with non-slip surface) • Provision of multiple unit choices of toilets (including Indian squat and European WC type fixtures) • Atleast one unisex toilet of size 2000 x 2200 mm with min. 900 mm clear door width • Provision of Grab Rails at both sides of the cubicle (with 680mm clear width) • Provision of Family toilet (with diaper changing area and adequate accessories) • Provision of at least one step free Urinal in male toilets and at least one urinal at low height with grab rails • Provision of Washbasin at accessible height • Provision of easy door closing mechanisms (simple lever type attachment) • Provision of Panic alarm buttons and an alarm signal outside with flash sign light for emergency situations • Provision of Inclusive Signs for Public Toilet (signs for Female, Male, Transgender, Family and Babies)
Drinking Water	• Provision of drinking facility basin at a height of 800-900 mm and 480 mm wide. Provision of tap above 100 mm from the basin • Provision of warning tactile tile below the basin • Provision of lever types taps
Ticket Counter	• Provision of counter with height to be 750 mm and rounded counter edges • Provision of counter to extend 480 mm on the outside with clear knee space below it
Pedestrian Crossings	• Provision of kerb ramps or raised islands at crossings • Tactile warning tiles at least of two rows to be marked at the beginning and end of traffic island • Provision of pelican signals for pedestrians especially those with blindness (Recommended) • Provision of pedestrian symbols along with disability symbol painted before the zebra crossing lines

3. Checklist for Street design Projects

Design Elements	Recommended Universal design considerations
General	• Integration with Public Transportation system • Adequate Ramps with Gentle Slopes • Provision of adequate and uniform illumination • Provision of shaded seating space at appropriate places • Provision of SOS features like medical emergency systems, facility wheelchair, and defibrillators etc
Sidewalks	• Use of non-slippery materials for floor surface • Continuous along the length of the road with kerb cuts at appropriate places • Height not more than 150 mm • 1500 -1800 mm clear width (At least) • Unobstructed tactile guiding blocks for persons with visual impairment. Warning tiles around obstructions including existing tree pit/ manhole/poles. • No overhead obstructions or projections Clear headroom of 2100 mm (min)
Way finding and Accessible Information	• Signages for accessible parking (signage for accessible car and adapted two-wheeler parking) ➢ at visible locations ➢ A 1000 m x 1000 mm signboard, provided at 2100-2500 mm clear height • Comprehensive wayfinding system to be easy to locate and legible • Comprehensive system of signages in tactile as well as visual format • Information Display Board height to vary from 900-1800 mm • Warning signage for slopes, obstructions, water body to be provided at visible locations.
Materials	• Non-Slippery Surface Material (no loose material like sand/gravel etc) • Selection considering ease of maintenance (across lifecycles) and longevity
Kerb Ramps	• Slope with gradient to be 1:10 • Flared edges to be maximum 1:10 • Strip of warning tactile blocks at the beginning and end of ramp
Walkways/ pathways	• Free from any obstructions • Smooth, hard and levelled floor surface • 1500-1800 mm width (for two-way movement) • Gradient to not exceed 1:20 • Provision of appropriate resting place at 30m intervals for walks more than 60m • Landscape elements (natural and built) to be integrated for shade in walkways • Manhole covers to be surrounded by tactile warning tiles • Provision of adequate and uniform illumination with high colour contrast between level surfaces and avoiding glare • Design of Tactile Guiding system at intersection as per Harmonized Guidelines • High contrast color to denote any change in level • Only gentle slopes should be maintained or provided with handrails on sides
Street Furniture	• Provisions of adequate shaded seating/resting spaces • Provisions of Seats with height 450-500 mm and a backrest & handrest at 700mm height • Provision of appropriate/sheltered resting place at 30m intervals for walks more than 60 m • Seating areas to be well illuminated and with clear hard paved surface in contrasting color • Provision of Litter bins, lighting poles etc - away from the tactile pathway

Design Elements	Recommended Universal design considerations
Bollards	• General Spacing of bollards 750 mm wide and one space 900 mm wide (for wheelchair access). • Height 1000 mm • Provision of tactile tiles in the center of the clear space between bollards • Provision of distinctly visible bollards through a contrasting colour material against the floor surface with light reflective indicators / surface • Use of Vandalism proof and high durability materials
Safety Rail	• Provision of Safety rails (800 mm high) at required places including landscape features like water elements etc.
Obstructions/ Protruding Objects	• Provision of contrasting colour of Protruding objects /obstructions
Green Areas	• Provision of Smooth, hard and levelled surface walkway for comfortable movement of wheelchair/strollers/crutches etc • Provision of Tactile (TGSIs) Tiles in the center of the hard paved walkway • Regular cleaning of leaf litter from the hard paved walkway • Provision of Inclusive components like Play Equipment for children with disabilities, Senior Citizen corner etc. • No landscapes (like tree branches and other elements) in the walkway to pose obstruction to persons with vision impairments • Provisions of plantation scheme with minimum littering
Gratings for storm water drains	• Longer dimension perpendicular to the direction of travel • Provision of either perforated or grooves in the grating with space less than 12 mm for safe mobility or crossover by people using sticks/canes/ wheelchairs/strollers • Edges of gratings to be well concealed in the floor masonry / civil work
Pedestrian Crossings	• Provision of kerb ramps or raised islands at crossings • Tactile warning tiles at least of two rows to be marked at the beginning and end of traffic island • Provision of pelican signals for pedestrians especially those with blindness (Recommended) • Provision of pedestrian symbols along with disability symbol painted before the zebra crossing lines

4. Checklist for Public Buildings



Design Elements	Recommended Universal design considerations
Access Route	• Accessible car parking bays towards the entrance/exit. • Provision of features such as gentle gradients and resting areas • Enable easy navigation, integrating wayfinding within the landscape and building forms to aid independent movement. • Provide way-marking features that are prominent and legible from the point of arrival. • Provisions for accessible street and pedestrian infrastructure within surroundings. • Safe and accessible traffic crossing and intersection • Integration with the public transportation system
Parking	• Adequate number of accessible car parking spaces • Bay Size 3600 mm (including 1200 for wheelchair assistive devices like rollators, etc. circulation) x 5000 mm • Bay located within 30 M of accessible/ main entrances • Designated parking space for Adapted scooters / tricycles • Provision of footpath (1200 mm wide) behind car parking for Wheelchair movement • Provision of Kerb ramps (1800 mm wide) in footpath behind the parking at appropriate places • Tactile warning tiles with stop tiles near obstacles and kerb ramps in access footpath • No landscapes (like tree branches and other elements) in the walkway to pose obstruction to persons with vision impairments • Non-Slippery Surface Material (no loose material like sand/gravel etc)
Entrance	• Provision of well-defined and covered (for weather protection) for entrances of public spaces along with designated signage • Obstruction free Entrance (Preferably step free entrance) • Provision of contrasting colour schemes and nosing for Steps or plinth edges • Provision of tactile Guiding blocks in desired/recommended manner to all important locations and amenities • Provision of pedestrian gate with clear width 900mm (at least) • Provision of Ramps with both side handrails of gradient 1:12 (for plinth level, wherever it's a stepped entrance) • Should be sizeable, to permit a wheelchair user and a companion. • Easily moving door swings. • Ramp at the entrance of the building at clear location • Slope of the ramp to be no less than 1:12 • Landing of at least 1500 x 1500 mm at 9m interval • Continuous Handrails on both sides at the Ramp at a height of 760-900mm • Non-slippery Material • Entrance door with clear width of minimum 1000mm • Covering/shading over entrance ramp • Ramps for single step at entrances of all rooms • Height of door handle to be 800-1000mm
Reception /information centers	• At least a part of the counter height should be at 800mm • Appropriate Illumination of the counter • Provisions like access card reader or other security sensors to be mounted at 1200 mm height
Circulation Corridors	• Accessible common areas including waiting rooms, lift lobbies etc. • Minimum 1500 mm width of the corridors • Grab rails along the corridors

Design Elements	Recommended Universal design considerations
Lifts	• Size of the lift to be minimum 1500mm x 1500mm • Control panel to be placed between 800-1000mm from the floor of the lift • Mirror at the back of the lift • Manoeuvring space in the lift lobby
Staircase	• Clear width of at least 1200 mm • Uniform steps of min width 300 of tread and 150 mm height of the riser • No curved or configured steps • Warning tactile tiles at start and end of each flight • Non slip nosing strips with permanent contrasting color- min 50 mm wide • Maximum 25 mm splay backward • Handrails on both sides with grab rails at two levels • Braille encryption at beginning and end of the hand rail
Doors	• Knurled surface door handles • Doors with atleast clear width of 900mm • Bright colored motif at eye-level for glass door • Contrasting color band for any level difference • Top handrails for all glass railings • Controls and operating mechanisms to be placed between 900-1200 mm and located at a minimum of 600 mm from any corner
Meeting rooms	• Flexible furniture layout • Anti-slippery floor surface to allow for easy wheelchair maneuverability • Audio Visual displays provisions
Workspaces	• Maneuvering space of 1500 mm between the aisles • Anti-slippery floor surface to allow for easy wheelchair maneuverability • Desks height between 750-800 mm with clear knee space (900 mm wide and 480 mm deep) • Round/chamfered edges for Desks
Toilets	• At least one unisex accessible washroom on all floors with clear wayfinding signage • Minimum size of cubicle to be 2.2x2 m. • Sufficient wheel chair maneuvering space inside the cubicle. • Provision of grab rail on adjacent wall to Water Closet. • Height of grab rail to be between 650-700mm • Accessible basin between 750-800mm • Flushing arrangements, dispensers and toilet paper mounted between 300mm x 800mm • Skid proof floor material • Proper drainage • Pivoted doors opening outwards
Other Amenities	• Cash and service counter below 800mm • Clear circulation path of 900mm • Accessible drinking water fountain/taps • Accessible design of vending machines and kiosks
Signages and Wayfinding	• Directional signages • Appropriate signage for designated spaces/rooms • Colors of the signage should be distinguishable and fonts should be legible • Wall mounted signs to be placed between 900-1800 • Emergency exits should be clearly marked

5. Checklist for Development of Educational Buildings

Design Elements	Recommended Universal design considerations
Access Route	• Accessible car parking bays towards the entrance/exit. • Provision of pedestrian friendly environment and provides features such as gentle gradients and resting areas • Enable easy navigation, integrating wayfinding within the landscape and building forms to aid independent movement. • Provide way-marking features that are prominent and legible from the point of arrival. • Provisions for accessible street and pedestrian infrastructure within the school locality. • Safe and accessible traffic crossing and intersection
Parking Bays	• Size of the designated space to be 3600 x 5000mm • Demarcation of accessible parking space • Kerb ramp • Wheelchair charging stations
Boarding Point for school bus service	• Ramp for boarding of the bus • Grab rail on both sides • Minimum width of boarding platform to be 900 mm
Entrance	• Should be sizeable, to permit a wheelchair user and a companion. • Easily moving door swings. • Ramp at the entrance of the building at clear location • Slope of the ramp to be no less than 1:12 • Landing of at least 1500 x 1500 mm at 9m interval • Continuous Handrails on both sides at the Ramp at a height of 760-900mm • Non-slippery Material • Entrance door with clear width of minimum 1000mm • Covering/shading over entrance ramp • Ramps for single step at entrances of all rooms • Height of door handle to be 800-1000mm
Reception /information centers	• At least a part of the counter height should be at 800mm • Appropriate Illumination of the counter
Corridor Spaces	• Accessible common areas including waiting rooms, lift lobbies etc. • Minimum 1500mm width of the corridors • Grab rails along the corridors
Toilets	• At least one unisex accessible washroom on all floors with child friendly sanitation fixtures • Minimum size of cubicle to be 2.2x2 m. • Sufficient wheel chair maneuvering space inside the cubicle. • Provision of grab rail on adjacent wall to Water Closet. • Height of grab rail to be between 650-700mm • Accessible basin between 750-800mm • Flushing arrangements, dispensers and toilet paper mounted between 300mm x 800mm • Skid proof floor material • Proper drainage • Pivoted doors opening outwards

Design Elements	Recommended Universal design considerations
Classrooms	• Acoustically sound design • Well illuminated rooms • Glare free windows • Accessible sockets and switches for IT based education • Flexible furniture layout • Detachable seats
Computer Labs	• Accessible entry • Minimum aisle width to be 900mm • Enhanced visual contrast among different elements • Appropriate illumination • Provision of emergency supplies • Accessibility of evacuation path
Library	• Minimum 900 mm aisle width • Height of the shelves to be restricted to 1200mm • Enhanced reading room with provision of audio reading of “Audio books” or “e-books” in audio/visual formats • RFID tagging systems in books, digital cataloguing • Flexible furniture layout of reading spaces • Ergonomically designed Furniture
Canteen/Cafeteria	• Cash and service counter below 800mm • Clear circulation path of 900mm • Accessible drinking water fountain/taps • Accessible design of vending machines and kiosks
Lift/Elevators	• Size of the lift to be minimum 1500mmx1500mm • Control panel to be placed between 800-1000mm from the floor of the lift • Mirror at the back of the lift • Maneuvering space in the lift lobby
Signage and wayfinding	• Directional signages • Appropriate signage for designated spaces/rooms • Colors of the signage should be distinguishable and fonts should be legible • Wall mounted signs to be placed between 900-1800 • Emergency exits should be clearly marked
Playground and Open Spaces	• Accessible and usable playground space • Facilitate easy access and movement • Accessible by wheelchair and crutch users • Design the space based on the varying need of age and ability. • Equipment to stimulate the sensory systems (auditory, tactile, visual, etc.) • Social Space to interact and socialise • Inclusive Play zones

6. Checklist for development of Large gathering spaces (Convention centers, auditorium etc.)

Design Components	Requirements and Recommended Standards
Streets and Walkways	• Accessible car parking bays • Accessible entrance/exit. • Provision of pedestrian infrastructure • Accessible design of the streets with features such as gentle gradients and resting areas within the connecting streets. • Enables easy navigation, integrating wayfinding and signage plan with the infrastructure to aid independent movement. • Provides way-marking features that are prominent and legible from the point of arrival. • Safe and accessible traffic crossing and intersections

Parking Bays	• Sufficient Number of car parking spaces (Provided as per Norms)
	• Size of the car parking to be 3600 x 5000 mm
	• Designated spots for tricycles or adapted scooters parking of size 3000 x 2400 mm
	  ➢ Location - 30 m from the accessible entrance of the building
	• Connected to the building entrance with an access route
	  ➢ 1200 mm width
	  ➢ easily accessed with a kerb ramp
	  ➢ Provision of tactile tiles
	• International symbol of accessibility (wheelchair sign) at approaches and entrances
	  ➢ Vertical sign at a visible height range between 1500-2100 mm
	  ➢ Square signage with dimension at least 1000 mm but not exceeding 1500 mm in length.

Boarding Point	• Ramp for boarding • Grab rail on both sides • Minimum width of boarding platform to be 900 mm
Entrance	• Wide entrance to permit a wheelchair user and a companion • Accessible door swings • Ramp at the entrance of the building at clear location • Slope of the ramp to be no less than 1:12 • Landing of at least 1500 x 1500 mm at 9m interval • Continuous Handrails on both sides at the Ramp at height between 760-900mm • Non-slippery Material • Entrance door with clear width of minimum 1000mm • Covering over Entrance ramp and ramp for floors • Ramps for single step at entrances of all rooms • Height of door handle between 800-1000mm

Signage and wayfinding	• Wayfinding components at appropriate places with appropriate:
	  ➢ Orientation
	  ➢ Route Decision
	  ➢ Route Monitoring
	  ➢ Destination Recognition
	• Building direction signage and bulletin board signs
	  ➢ 1800 mm from finished floor level.
	• Colors of the signage should be distinguishable and fonts to be legible
	• Emergency exits should be clearly marked
	• Provision for Tactile Map of the building
	• Both orientational and destination recognition signages for evacuation and refuge areas, elevators, lifts and restrooms should be there.

Design Components	Requirements and Recommended Standards
Reception / information centers	• At least a part of the counter height should be at 800mm • Appropriate Illumination of the counter • Flexible layout of lobby and waiting areas
Corridor Spaces	• Accessible common areas including waiting rooms, lift lobbies etc. • Minimum 1500mm width of the corridors • Grab rails along the corridors
Lift/Elevators/ Staircase	• Clear size of the lift to be minimum 1500 x1500mm • Control panel to be placed between 800-1000mm from the floor of the lift • Provision for mirror at the back of the lift • Wide Maneuvering space in the lift lobby • Minimum 1500 mm clear width of the staircase • Provision for Grab rail on both sides
Toilets	• At least one unisex accessible washroom on all floors with child friendly sanitation fixtures • Minimum size of cubicle to be 2.2x2 m. • Sufficient Maneuvering space inside the cubicle. • Provision of grab rail on adjacent wall to WC. • Height of grab rail would be between 650-700mm • Accessible basin between 750-800mm • Flushing arrangements, dispensers and toilet paper mounted between 300mm x 800mm • Skid proof floor material • Proper drainage • Pivoted doors opening outwards
Food Court	• Cash and service counter below 800mm • Clear circulation path of 900mm • Accessible drinking water fountain/taps • Accessible design of vending machines and kiosks
Additional Services	• Accessible Drinking fountain at multiple locations • Accessible vending machines • Accessible washrooms ➢ At least one unisex accessible washroom on all floors with child friendly sanitation fixtures ➢ Sufficient maneuvering space of 2.2x2 m inside toilets ➢ Grab rail on adjacent wall to WC between 450-500mm ➢ Accessible basin between 750-800mm ➢ Flushing arrangements, dispensers and toilet paper mounted between 300mm x 800mm ➢ Skid proof floor material ➢ Pivoted doors opening outwards ➢ Space for diaper changing, baby feeding etc.

Design Components	Requirements and Recommended Standards
Auditorium	• Accessible Seating ➢ Reserved seats for wheelchairs near the entrance ➢ minimum 1200 mm wide aisle for parking and maneuvering of the wheelchairs • Movement aisle ➢ Minimum 1200 mm corridor space ➢ Contrasting floor color in the auditorium ➢ Tactile tiles for persons with visual impairments • Information Dissemination ➢ Information in visual (signs, notice, digital display etc.), tactile (embossed lettering, braille), audio (announcements, speakers etc.) formats. ➢ Provision of live captioning/ sign language interpretation for persons with hearing impairments ➢ Provision of induction loop system to enhance acoustics of the hall • Stage and Green rooms ➢ Access to stage and backstage by providing ramps/ platform lifts ➢ Accessible entrance to the back stage space ➢ Maneuvering space of 1500 mm for wheelchair movement
Meeting rooms	• Flexible furniture layout • Accessible entrance • Table space at height of 750 mm, with leg space of 480 wide
Exhibition Space	• All exhibits to be put above 900 mm height and between 1800 mm height • At least 1500 mm to left between each exhibit • Observation space of minimum 1200 mm • Tactile displays and information
Recreational/Open Spaces	• Accessible and usable space • Facilitate easy access and movement • Design the space based on the varying need of age and ability. • Equipment to stimulate the sensory systems (auditory, tactile, visual, etc.) • Social Space to interact and socialize • Universally designed furniture

NOTES

NOTES

NOTES

UK Government

The Foreign, Commonwealth & Development Office pursues the national interests of the UK and projects the UK as a force for good in the world. FCDO promotes the interests of British citizens, safeguards the UK's security, defends the UK's values, works to reduce poverty and tackle global challenges with international partners.

National Institute of Urban Affairs

Established in 1976, National Institute of Urban Affairs (NIUA) was tasked to bridge the gap between research and practice on issues related to urbanization, and suggest ways and mechanisms to address these urban challenges of the country. For more than 40 years now, NIUA has been the vanguard for contributing to, and at times, building the urban narrative for a fast-evolving urban India. The Institution has been actively working towards bringing forth key areas of concern for urban India in order to build the urban discourse at various scales.

It has utilized its competencies in research, knowledge management, policy advocacy and capacity building to address the urban challenges, and continuously strive to develop sustainable, inclusive, and productive urban ecosystems in India. It has emerged as a thought leader and knowledge hub for urban development in India, and is sought out by both Indian and International organizations for collaborations and partnerships for India's urban transforming journey. NIUA is committed towards aligning its efforts towards achieving the Sustainable Development Goals (SDGs) through all its initiatives and programs.

Empower through inclusivity

#BASIIC_NIUA
#inclusionmatters
#AccessibleCities
#InclusiveCities
#CitiesforAll
#EmpowerthroughInclusivity

Contact us: National Institute of Urban Affairs, 1st Floor, Core 4B, India Habitat Centre, Lodhi Road, New Delhi -110003, India
Telephone: (91-11) 24617517, 24617543, 24617595 • Email: director@niua.org, thebasiicproject@niua.org, uchoudhury@niua.org • Website: www.niua.org @Niua_India