

Govt. of India  
Central Public Works Department  
O/o Chief Engineer (CSQ) E  
A Wing, Room no. 229  
Nirman Bhawan, New Delhi -110011  
Tel. 011-23061418

**OFFICE MEMORANDUM**

No. 30(01)/LIFTS/CE,CSQ(E)/E-3141577/2024/02 E

Dated 19/01/2024

**ISSUED BY THE AUTHORITY OF DIRECTOR GENERAL, CPWD**

**Sub: Amendments in CPWD General Specification for Electrical Works (Part III Lift & Escalators) 2003 – Amendment No. 1.**

The following amendments shall be made in provisions of CPWD General Specification for Electrical Works (Part III Lift & Escalators) 2003 in regard to barrier free requirements in Lifts & Escalators :-

Para No.	Existing provisions	Amended Provisions
1. Appendix –VII (Barrier Free Requirements).	<p>1)Wherever lift is required as per by-laws, provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommend for passenger lift of 13 persons capacity by Bureau of Indian Standards.</p> <p>Clear internal depth : 1100 mm</p> <p>Clear internal width : 2000 mm</p> <p>Entrance door width : 900 mm</p> <p>2) hand rail not less than 600 mm long at 900 mm above floor level shall be fixed adjacent to the control panel.</p> <p>3)The lift lobby shall be of an inside measurement of 1800 x 2000 mm or more.</p> <p>4) The time of an automatically closing door</p>	<p><b>A. Lift Location &amp; Size</b></p> <p>1. Lifts shall be conveniently located and appropriately guided from the entrance by signage (Internal of Symbol of Accessibility) and tactile guiding systems to the lift lobbies in all building typologies.</p> <p>It is recommended that in multi-storied buildings, there should be at least one lift accessible to transport persons with disabilities at all usable levels and all levels used by the general public or staff. The requirements given below are to be considered and provided by building planners and building designers.</p> <p>a) Lift shall be located at accessible routes.</p> <p>b) Accessible landings at lift entrance shall be provided on each eligible floors.</p> <p>c) Lift shall be marked with international symbol of accessibility.</p> <p>d) It is recommended to install a floor directory of the main facilities and services available on the lift landing, along with an accessible emergency exit route that clearly indicates the location of</p>

	<p>should be minimum 5 seconds and the closing speed should not exceed 0.25 M/Sec.</p> <p>5) The interior of the cage shall be provided with a device that audibly indicate the floor the cage has reached and indicate that the door of the cage for entrance/exit is either open or closed.</p> <p>6) The Braile signage will be posted outside the lifts.</p>	<p>the nearest refuge area for persons with disabilities.</p> <p>e) A sign indicating the number of the floor arrived shall be provided on each lift landing on the wall opposite the lift in big font with big colour contrast.</p> <p>2. The minimum Internal clear size of the lift car should be 1900 mm x 1900 (Width x Depth) mm for all new establishments. In case where the space is not available the lift size shall be a minimum of 1500 mm x 1500 mm (Width x Depth) if approved by Engineer in charge.</p> <p>3. It is recommended to install a 13 passenger lift which allows easy users, baby strollers and other wheeling devices.</p> <p>4. The floor of the lift car shall be rigid and non-reflective matt finish and shall be slip resistant to decrease the risk of stumbling.</p> <p>5. Internal car lighting should provide minimum level of illumination of 100 lux at floor level, uniformly distributed, avoiding spotlights.</p> <p><b>B. Lift Door :</b></p> <p>1. The lift door should have a clear opening of not less than 900 mm and contrasting in colour from the adjoining wall.</p> <p>2. There should be no difference in level between the lift door and the floor surface at each level. The gap between the lift door and building floor should not be more than 12 mm. Obstacle-free accessibility on the landing floors is required on all eligible floors.</p> <p>3. Doors shall be automatic horizontal sliding type and shall remain opened at least 3 seconds and adjustable upto 20 seconds. .</p> <p>4. Time of closing of an automatic door should be more than 5 seconds and the closing speed should not exceed 0.25 meters per second.</p> <p>5. The lift doors shall have a vision panel to enable persons with hearing impairment to signal for help or assistance in the event of</p>
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an emergency. Further an appropriate technological support be provided (Through CCTV intercom or emergency messaging services or alarms etc.) to respond to the emergency requirements of person with hearing impairment or deafness.

6. A non-contact sensor device shall be provided in the door opening to detect an entering or exiting passenger or an assistive device to prevent the risk of the passenger or an assistive device from being hit by the leading door panel(s). The sensor device shall cover at least 1600 mm of the door height measured from a distance of 25 mm above the door sill. If there is a user in the doorway, the door shall automatically reopen and shall not produce a force greater than 135 N.

**C. Call Button :** The call button located outside the lift and it should have :

1. A clear floor space of at least 900 mm x 1200 mm with no obstruction placed to prevent a wheelchair user from reaching the call button.

2. Be installed at a height between 800 mm and 1000 mm.

3. Call buttons in each floor can contain icons instead of digits in tactile and colour contrasted against the background.

4. Buttons shall always provide a two-channel feedback when pressed: visual and acoustic or visual and tactile.

5. Colour of any face plate of landing push button shall be contrasted to its surroundings.

6. For the benefit of wheelchair users, the minimum distance to the centre line of any of the buttons from any wall or door at right angles, shall be 500 mm.

7. Active part of the button shall be identifiable visually and by touch / acoustic from the face plate or its surroundings. Additionally, braille markings may be provided apart from raised letters.

**D. Control Panel**

The control panel should have :



		<p>1. A clear floor space of at least 900 mm x 1200 mm with no obstruction placed to prevent a wheelchair user from reaching it</p> <p>2. Be placed at a height of between 900 mm to 1200 mm from the floor level.</p> <p>3. Provide equidistant access to control panel buttons, especially for independent wheelchair users or others, the control panel shall be placed horizontally.</p> <p>4. The buttons with Braille/raised letters and in sharp contrast from the background to aid people with visual impairments. Touch sensitive buttons or keypads shall be avoided.</p> <p><b>E. Grab Bars/Hand Rail :</b></p> <p>Grab bars in lifts should have following minimum provisions:</p> <p>1. Slip-resistant with round ends.</p> <p>2. The bar / rail shall be circular section of 38-50 mm in diameter.</p> <p>3. The free space between the wall and the gripping part shall be at least 40-60 mm from the walls; 40 mm min. for smooth wall surfaces and 60 mm min. for rough wall. The bar surfaces shall Be free of any sharp or abrasive elements and Have continuous gripping surfaces, without interruptions or obstructions that can break a hand hold. The Grab bar may be interrupted where the car operating panel is located in order to avoid obstructing buttons or controls and be allowed to have a gap of 150 mm or less if it is not continuous.</p> <p>4. It shall able to bear a weight of 250 kg.</p> <p>5. Manufactured from a material which contrasts with the wall finish, be not too warm/cold to the touch and provide good grip.</p> <p>6. Placed at a height of 800 mm to 900 mm from the floor level.</p>
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7. Be fixed on both sides and at the rear of the lift.

8. Grab bars should be constructed such that there are no open ends to cause hooking when used by passengers. If the end of a handrail directly faces a doorway, it shall be returned to the wall .

#### **F. Audio and Visual Indicators**

1. The lift should have a voice announcement system along with a visual display to indicate the floor level, car status and also the information that the door of the elevator is open or closed for entrance or exit.

2. The announcement system should be clearly audible i.e. the announcement should be 50 Db.

3. The emergency bell in the lift must be connected to a blinking light in the lift car to signal to persons with hearing.

4. Two illuminated indicator arrows giving advance information on the next departure direction of the car (only one at the terminal landings) placed above or near the doors in a visible position, to indicate the direction in which the car will subsequently move. Landing indicator arrows shall be located between 1.80 m and 2.50 m above the floor. The height of the arrows shall be at least 40 mm.

5. An audible signal shall accompany the lighting of arrows. The audible signal shall use different sounds for up and down.

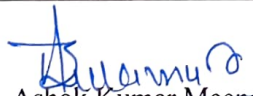
i) One sound for up; and

ii) Two sounds for down

6. A car position signal shall be located with or above the car operating panel. The center line of the indicator shall be positioned between 1.60 m and 1.80 m from the car floor. The height of the floor number shall be between 25 mm and 60 mm and have a contrasted colour to its surroundings.

#### **G. General:**

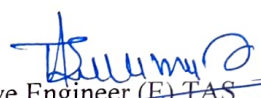
		<p>1. Battery operated/ back up emergency light, alarm and intercom preferably hands-free type, shall be provided.</p> <p>2. Automatic Rescue Device (ARD) :</p> <p>In the event of a power failure during normal operation, a battery operated ARD shall automatically move the stalled lift to the nearest floor, open the doors, thereby facilitating rescue of the stranded passengers in the lift.</p> <p>3. The lift car shall not start when the car is overloaded. The lift operation shall resume only upon removal of the overload.</p> <p>4. The floor of the lift car should be slip resistant and have similar frictional qualities to the floor of the lift landing to decrease the risk of stumbling.</p> <p>5. The provision of a mirror ( Laminated safety glass) on the wall of the lift car opposite the lift door is a positive aid to navigation for wheelchair users. It allows the wheelchair user to see if anyone is behind them and also to see the floor indicator panel. The mirror should not extend below 900 mm from the lift floor to avoid confusing people with visual impairments.</p> <p>6. The other provision related to disable person friendly for lifts in conformity with Harmonised Guidelines &amp; Standards for Universal Accessibility in India 2021 by MoHUA, Govt. of India and IS : 15330 : 2020.</p>
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 Ashok Kumar Meena  
 Executive Engineer (E) TAS 19/11/2024

To,

(CPWD Website only)

All SDGs, ADGs, CEs, SEs and EEs CPWD for necessary action.

  
 Executive Engineer (E) TAS 19/11/2024