

27 TO PROVIDE FACILITIES FOR PHYSICALLY HANDICAPPED PERSONS

27.1 EXTENT

They shall extend to the whole of Bhavnagar Area Development Authority Area.

27.2 DEFINITIONS

27.2.1 Non-ambulatory Disabilities

Impairments that regardless of cause or manifestation. for all practical purposes confine individuals to wheel-chairs.

27.2.2 Semi-ambulatory Disabilities

Impairments that cause individuals to walk with difficulty or insecurity individuals using braces or crutches. amputees arthrities. spasties and those with pulmonary and cardiac flls may be semi-ambulatory.

27.2.3 Hearing Disabilities

Deafness or hearing handicaps that might make an individual insecure in public areas because he is unable to communicate or hear warning signals.

27.2.4 Sight Disabilities

Total blindness or impairments affecting sight to the extent that the individual functioning in public areas is insecure or exposed to danger.

27.2.5 Wheel Chair

Chair used by Disabled people for mobility the standard size of wheel chair shall be taken as 1050x750 mm.

27.3 SCOPE

These regulations are applicable to all buildings and facilities used by the public It does not apply to private & public residences.

27.4 SITE DEVELOPMENT

Level of the roads. access paths and parking areas shall be described in the plan along with specification of the materials.

27.4.1 Access Path / Walk Way :

Access path from the entry and surface parking to Building entrance shall be minimum of 1800mm wide having even surface without any steps. Slope if any, shall not have gradient greater than 5: Selection of floor material shall be made suitably to attract or to guide visually impaired persons (limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons here in after referred to as " guiding floor material" (regulation no. 28.6). Finishes shall have a non slip surface with a texture traversable by a wheel chair Curbs wherever provided should blend to a common level.

27.4.2 Parking :

For parking of vehicles of handicapped people the following provisions shall be made.

- a) Surface parking for two car Spaces shall be provided near entrance for the physical handicapped persons with maximum travel distance of 30 Mts. from building.
- b) The width of parking bay shall be minimum 3.60 metre.
- c) The information stating that the space is reserved for wheel chair users shall be conspicuously displayed.
- d) Guiding floor materials shall be provided or a device which guides visually impaired persons with audible signals or other devices which serves the same purpose shall be provided.

27.5 BUILDING REQUIREMENTS

The specified facilities for the building for physically handicapped persons shall be as follows.

1. Approach to plinth level
2. Corridor connecting the entrance exit for the handicapped.
3. Stair-ways.
4. Lift.
5. Toilet.
6. Drinking water.

27.5.1 Approach to plinth level :

Every building should have at least one entrance accessible to the handicapped and shall be indicatee by proper signage. This entrance shall be approached through a ramp together with the stepped entry.

27.5.1(A) Ramped Approach :

Ramp shall be finished with non slip material to enter the building minimum width of ramp shall be 1800 mm. with maximum gradient 1:12. length of ramp shall not exceed 9.0 Mts. having 800 mm. high hand rail on both sides extending 300 mm. beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50 mm.

27.5.1(B) Stepped Approach :

For stepped approach size of tread shall not be less than 300 mm. and maximum riser shall be 150 mm., Provision of 800 mm high hand rail on both sides of the stepped approach similar to the ramped approach.

27.5.1(C) Exit Entrance Door :

Minimum clear opening of the entrance door shall be 900 mm. and it shall not be provided with step that obstructs the passage of a wheel chair user Threshold shall not be raised more than 12 mm.

27.5.1(D) Entrance Landing :

Entrance landing shall be providing adjacent to ramp with the minimum dimension 1800x2000 mm. The entrance landing that adjoin the top end of a slope shall be provided with floor materials to attract the attention of visually impaired persons (limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons hereinafter referred to as "guiding floor material" (regulation no. 28.6).

- i) Finishes shall have a non slip surface with a texture traversable by a wheel chair Curbs wherever provided should to a common level.

27.5.2 Corridor connecting the entrance / exit for the handicapped :

The corridor connecting the entrance exit for handicapped leading directly outdoors to a place where informati on concerning the overall use of the specified building can be provided to visually impaired persons either by a person or by signs. shall be provided as follows.

- a) "Guiding floor materials" shall be provided or devices that end sound guide visually impaired persons.
- b) The minimum width shall be 1500 mm.
- c) in case there is a difference of level slope ways shall be provided with a slope of 1: 12
- d) Hand rails shall be provided for ramps slope ways.

27.5.3 Stair ways :

On of the stair - ways near the entrance exist for the handicapped shall have the following provisions:

- a) The minimum width shall be 1350 mm.
- b) Height of the riser shall not be more than 150 mm. and width of the tread 300 mm. The steps shall not have abrupt (square) nosing.
- c) Maximum number of risers on a flight shall limited to 12.
- d) Hand rails shall be provided on both sides and shall extend 300 mm on the top and bottom of each flight on steps.

27.5.4 Lifts :

wherever lift is required as per bye-laws. provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommended for passenger lift of 13 persons capacity by bureau of Indian standards.

Clear internal depth	1100mm.
Clear internal width	2000mm.
Entrance door width	900mm.

- a) A hand rail not less than 600 mm. long at 1000 mm. above floor level shall be fixed adjacent to the control panel.
- b) The lift lobby shall be of an inside measurement of 1800x1800 mm or more.
- c) The time of an automatically closing door should be minimum 5 seconds and the closing speed should not exceed 0.25 mm. sec.
- d) The interior of the cage shall be provided with a device that audibly indicates the floor the cage has reached and indicates that the door of the cage for entrance exit is either open or closed.

27.5.5 Toilets :

One special W.C. in a set of toilet shall be provided for the use of handicapped with essential provision of wash basin near the entrance for the handicapped.

- a) The minimum size shall be 1000x1750 mm.
- b) Minimum clear opening of the door shall be 900 mm. and the door shall be swing out
- c) Suitable arrangement of vertical horizontal hand rails with 50 mm clearance from wall shall be made in the toilet.
- d) The W.C. seat shall be 500 mm. from the floor.

27.5.6 Drinking Water :

Suitable provision of drinking water shall be made for the handicapped near the special toilet provided for them.

27.5.7 Designing for Children :

In the buildings meant for the predominant use of the children. it will be necessary to suitably alter the height of the hand-rail and other fittings & fixtures etc.

27.6 EXPLANATORY NOTES

GUIDING/WARNING FLOOR MATERIAL

The floor materials to guide or to warn the visually impaired persons with a change of colour or material with conspicuously different texture and easily distinguishable from the rest of the surrounding floor materials is called guiding or warning floor materials. The material with different texture gives audible signals with sensory warning when a person moves on this surface with walking stick. The guiding warning floor material is meant to give the directional effect or warn a person at critical places. This floor material shall be provided in the following areas.

- a) The access path to the building and to the parking area.
- b) The landing lobby towards the information board, reception, lifts, stair-cases and toilets
- c) Immediately at the beginning end of walkway where there is a vehicular traffic
- d) At the location abruptly changing in level or ramp.
- e) Immediately in front of an entrance exit and the landing.

PROPER SIGNAGE

Appropriate identification of specific facilities within a building for the handicapped persons should be done with proper signage. Visually impaired persons make use of other senses such as hearing and touch to compensate for the lack of vision. Whereas visual signals benefit those with hearing disabilities.

Signs should be designed and located so that they are easily legible by using suitable letter size (not less than 20 mm high). For visually impaired persons information board in Braille should be installed on the wall at a suitable height and it should be possible to approach them closely to ensure safe walking there should not be any protruding sign which creates obstruction in walking. Public Address System may also be provided in busy public areas.

The symbols information should be in contrasting colour and properly illuminated because people with limited vision may be able to differentiate amongst primary colours. International symbol mark for wheel chair as shown below be installed at the lift, toilet, staircase, parking areas etc that have been provided for the handicapped.