7. CROSSINGS

- 7.1 In order to reduce the exposure time to vehicular traffic, all at grade crossing should
 - 7.1.1 Be as near perpendicular to the carriageway as possible.
 - 7.1.2 Be located at the narrowest, most convenient part of the carriageway.
 - 7.1.3 Have central refuges of at least 1.5 m in depth and preferably 2 m, provided as a midcrossing shelter, where the width of carriageway to be crossed exceeds 10 m.
- 7.2 All crossings should be located close if not contiguous with the normal pedestrian desire line.
- 7.3 Provide tactile blocks in the immediate vicinity of crossings as an aid to the blind. The tactile surface has to be sufficiently high enough to be felt through the sole of the shoe but low enough not to cause pedestrian to trip, or to effect the mobility of wheelchair users. See details of recommended pairing slabs below.

Note: Tactile strips formed from brushed or grooved concrete finishes have not been proven successful as they do not provide sufficient distinction from the normal footway surface and therefore should not be used.

- 7.4 The most beneficial form of crossing as far as any disabled are concerned is the light controlled crossing having pedestrian phases and synchronized audible signals and should, wherever possible, be provided in preference to other types of crossings as determined by the duly authorized agency.
- 7.5 The audible signal used for crossings should be easily distinguishable from other sounds in the environment to prevent confusion to the blind. A prolonged sound should be audible to warn the blind that the lights are about to change. (Design of such a system shall be developed by the Traffic Engineering Center.)
- 7.6 The flashing green period required for the disabled should be determined on the basis of a walking speed of 0.90 m/sec, rather than 1.20 m/sec, which is what is normally used. The minimum period for

the steady green (for pedestrians) should not be less than 6 seconds or the crossing distance times 0.90 m/sec., whichever is the greatest.

B. PARKING

1. PARKING AREAS

- 1.1 Parking spaces for the disabled should allow enough space for a person to transfer to a wheelchair from a vehicle;
- 1.2 Accessible parking spaces should be located as close as possible to building entrances or to accessible entrances;
- 1.3 Whenever and wherever possible, accessible parking spaces should be perpendicular or to an angle to the road or circulation aisles;
- 1.4 Accessible parking slots should have a minimum width of 3.70 m.:
- 1.5 A walkway from accessible spaces of 1.20 m. clear width shall be provided between the front ends of parked cars;
- 1.6 Provide dropped curbs or curb cut-outs to the parking level where access walkways are raised;
- 1.7 Pavement markings, signs or other means shall be provided to delineate parking spaces for the handicapped;
- 1.8 Parking spaces for the disabled should never be located at ramped or sloping areas:

C. INSIDE BUILDINGS AND STRUCTURES

1. ENTRANCES

- Entrances should be accessible from arrival and departure points to the interior lobby;
- 1.2 One (1) entrance level should be provided where elevators are accessible;
- 1.3 In case entrances are not on the same level of the site arrival grade, ramps should be provided as access to the entrance level;
- 1.4 Entrances with vestibules shall be provided a level area with at least a 1.80 m. depth and a 1.50 m. width;

2. RAMPS

- 2.2 Changes in level require a ramp except when served by a dropped curb, an elevator or other mechanical device:
- 2.2 Ramps shall have a minimum clear width of 1.20 m;
- 2.3 The maximum gradient shall be 1:12;
- 2.4 The length of a ramp should not exceed 6:00 m. if the gradient is 1:12; longer ramps whose gradient is 1:12 shall be provided with landings not less than 1.50 m.:
- 2.5 A level area not less than 1.80 m. should be provided at the top and bottom of any ramp;
- 2.6 Handrails will be provided on both sides of the ramp at 0.70 m. and 0.90 m. from the ramp level;
- 2.7 Ramps shall be equipped with eurbs on both sides with a minimum height of 0.10 m.;
- 2.8 Any ramp with a rise greater than 0.20 m. and leads down towards an area where vehicular traffic is possible, should have a railing across the full width of its lower end, not less than 1.80 meters from the foot of the ramp;

3. DOORS

- 3.1 All doors shall have a minimum clear width of 0.80 m;
- 3.2 Clear openings shall be measured between the surface of the fully open door at the hinge and the door jamb at the stop;
- 3.3 Doors should be operable by a pressure or force not more than 4.0 kg; the closing device pressure an interior door shall not exceed 1 kg.;
- 3.4 A minimum clear level space of 1.50 m x 1.50 m shall be provided before and extending beyond a door;
 - EXCEPTION: where a door shall open onto but not into a corridor, the required clear, level space on the corridor side of the door may be a minimum of 1.20 m. corridor width:
- Protection should be provided from doors that swing into corridors;
- Outswinging doors should be provided at storage rooms, closets and accessible restroom stalls;

- Latching or non-latching hardware should not require wrist action or fine finger manipulation;
- 3.8 Doorknobs and other hardware should be located between 0.82 m. and 1.06 m. above the floor; 0.90 is preferred;
- 3.9 Vertical pull handles, centered at 1.06 m. above the floor, are preferred to horizontal pull bars for swing doors or doors with locking devices;
- 3.10 Doors along major circulation routes should be provided with kick plates made of durable materials at a height of 0.30 m to 0.40 m;

4 THRESHOLDS

4.1 Thresholds shall be kept to a minimum; whenever necessary, thresholds and sliding door tracks shall have a maximum height of 25 mm and preferably ramped;

5. SWITCHES

- 5.1 Manual switches shall be positioned within 1.20 m to 1.30 m above the floor:
- 5.2 Manual switches should be located no further than 0.20 from the latch side of the door:

6. SIGNAGES

(See "SIGNAGES" under OUTSIDE & AROUND BUILDINGS.)

7. CORRIDORS

- 7.1 Corridors shall have minimum clear width of 1.20 m., waiting areas and other facilities or spaces shall not obstruct the minimum clearance requirement;
- 7.2 Recesses or turnabout spaces should be provided for wheelchairs to turn around or to enable another wheelchair to pass; these spaces shall have a minimum area of 1.50 m x 1.50 m and shall be spaced at a maximum of 12.00 m.;
- 7.3 Turnabout spaces should also be provided at or within 3.50 m, of every dead end:
- 7.4 As in walkways, corridors should be maintained level and provided with a slip resistant surface;

8. WASHROOMS & TOILETS

- 8.1. Accessible public washrooms and toilets shall permit easy passage of a wheelchair and allow the occupant to enter a stall, close the door and transfer to the water closet from either a frontal or lateral position;
- 8.2 Accessible water closet stalls shall have a minimum area of 1.70 x 1.80 mts. One movable grab bar and one fixed to the adjacent wall shall be installed at the accessible water closet stall for lateral mounting; fixed grab bars on both sides of the wall shall be installed for stalls for frontal mounting;
- 8.3 A turning space of 2.25 sq.m. with a minimum dimension of 1.50 m. for wheelchair shall be provided for water closet stalls for lateral mounting;
- 8.4 All accessible public toilets shall have accessories such as mirrors, paper dispensers, towel racks and fittings such as faucets mounted at heights reachable by a person in a wheelchair;
- 8.5 The minimum number of accessible water closets on each floor level or on that part of a floor level accessible to the disabled shall be one (1) where the total number of water closets per set on that level is 20; and two (2) where the number of water closets exceed 20;
- 8.6 In order to aid visually impaired persons to readily determine whether a washroom is for men or for women, the signage for men's washroom door shall be an equilateral triangle with a vertex pointing upward, and those for women shall be a circle; the edges of the triangle should be 0.30 m long as should be the diameter of the circle; these signages should at least be 7.5 mm thick; the color and gray value of the doors; the words "men" and "women" or the appropriate stick figures should still appear on the washroom doors for the convenience of the fully sighted;
 - Note: the totally blind could touch the edge of the signs and easily determine whether it is straight or curved:
- 8.7 The maximum height of water closets should be 0.45 m.; flush control should have a maximum height of 1.20 mts.

- 8.8 Maximum height of lavatories should be 0.80 m with a knee recess of 0.60 - 0.70 M. vertical clearance and a 0.50 m. depth.
- 8.9 Urinals should have an elongated lip or through type; the maximum height of the lip should be 0.48 m.

9. STAIRS

- 9.1 Tread surfaces should be a slip-resistant material; nosings may be provided with slip-resistant strips to further minimize slipping;
- 9.2 Slanted nosings are preferred to projecting nosings so as not to pose difficulty for people using crutches or braces whose feet have a tendency to get caught in the recessed space or projecting nosings. For the same reason, open stringers should be avoided.
- 9.3 The leading edge of each step on both runner and riser should be marked with a paint or non-skid material that has a color and gray value which is in high contrast to the gray value of the rest of the stairs; markings of this sort would be helpful to the visually impaired as well as to the fully sighted person;
- 9.4 A tactile strip 0.30 m, wide shall be installed before hazardous areas such as sudden changes in floor levels and at the top and bottom of stairs; special care must be taken to ensure the proper mounting or adhesion of tactile strips so as not to cause accidents:

10. ELEVATORS

- 10.1 Accessible elevators should be located not more than 30.00 m, from the entrance and should be easy to locate with the aid of signs;
- 10.2 Accessible elevators shall have a minimum dimension of 1.10 m. x 1.40 m.;
- 10.3 Control panels and emergency system of accessible elevators shall be within reach of a seated person; centerline heights for the topmost buttons shall be between 0.90 m to 1.20 m from the floor;
- 10.4 Button controls shall be provided with braille signs to indicate floor level; at each floor, at the door frames of elevator doors, braille-type signs shall be placed so that blind persons can be able to discern what

floor the elevator car has stopped and from what level they are embarking from; for installation heights, see Section 6.6, Signages;

10.4 Button sizes at elevator control panels shall have a minimum diameter of 20 mm and should have a maximum depression depth of 1 mm;

D. SAFETY

FENCING FOR ROADWORKS AND FOOTWORKS

All excavations, whether on the road or footway must be adequately protected, i.e. fenced. Whatever the type of fencing used, it is important the railings should incorporate the following features.

- 1.1 The height of the top of the rail should be at least 1.00 M. above the adjacent surface.
- 1.2 The railing should incorporate a tapping rail to assist the blind, and this should not be greater than 0.35 M. above adjacent surface.
- 1.3 The fence should be strong enough to offer resistance should a blind person walk into it.
- 1.4 Gaps should not occur between adjoining fence lengths.

2. COVERS FOR EXCAVATIONS

- 2.1 Excavations in the footway or carriageway where pedestrians may walk are covered over temporarily with properly constructed and supported boards to provide a temporary path for pedestrians.
- 2.2 If the footway width will be reduced to less than 1.20 because of the excavation, the temporary covering should extend across the whole of the footway.
- 2.3 Minimum dimensions at obstructions
 - 2.3.1 Effective width of footways past any obstruction should not be less than 1.20 M.
 - 2.3.2 If unavoidable, loose materials temporarily stored on footways must be properly fenced and prevented from encroaching onto the main footway by the use of a kickboard at least 0.20 M. high

which will also serve as a tapping board for the blind.

3. SIGNAGE FOR ROADWORKS ON THE CARRIAGEWAY

- 3.1 Temporary signs used to warn of roadworks should be carefully located and should not cause any inconveniences to pedestrians, particularly the disabled.
 - Signs should be located on verges or similar whenever these are available.
 - 3.1.2 Signs should not reduce the available footway width to less than 1.20 M.

4. LOCATION OF EMERGENCY EXIT

- 4.1 Wall mounted or free standing tablets with an embossed plan configuration of the building which also shows the location of the lobby, washrooms and emergency exits of the building (indicated by different textures with corresponding meanings) should be provided either in front of the building or at the main lobby. The markings of this tablet should be readable by both the fully sighted and the blind persons.
- 4.2 Flashing light directional signs indicating the location(s) of fire exit shall be provided at every change in direction with sufficient power provided in accordance with the provisions for emergency lighting under Section 3.410 of P.D. NO. 1185 (The Fire Code of the Philippines)

5. AUDIBLE AND VISIBLE ALARM SYSTEM

- 5.1 Audio-visual alarm systems shall be provided in all fire sections, as defined under P.D. NO. 1185 otherwise known as The Fire Code of the Philippines, of buildings in accordance with the guidelines provided under Section 3.503 of the same.
- 5.2 For buildings of residential occupancies, i.e. Groups A and B, as defined under Section 701, of Chapter 7 of P.D. NO. 1096 otherwise known as the "The National Building Code of the Philippines", the provision of "VIBRA-ALARMS" for all occupants who are either deaf or hearing-impaired shall be compulsory. Nothing follows

ILLUSTRATIONS FOR MINIMUM REQUIREMENTS

A. OUTSIDE AND AROUND BUILDINGS

1. DROPPED CURBS

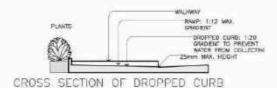
- Changes in level walkways should be by a dropped curb.
- 1.2 Dropped curbs should be provided at pedestrian crossings and at the end of walkways of a private street or access road.
- 1.3 Dropped curbs at crossings have a width corresponding to the width of the crossing; otherwise, the minimum width is 0.90 m.
- 1.4 Dropped curbs shall be ramped towards adjoining curbs with a gradient not more than 1:12.





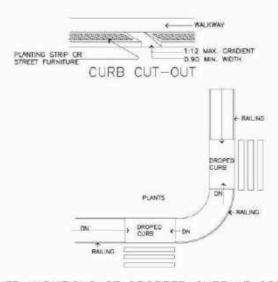
VARIATION OF DROPPED CURB AT CORNER

- 1.5 Dropped curbs shall be sloped towards the road with a maximum cross gradient of 1:20 to prevent water from collecting at the walkway.
- 1.6 The lowest point of a dropped curb should not exceed 25 mm from the road or gutter.

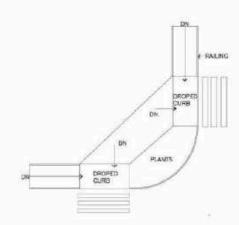


2. CURB CUT-OUTS

- 2.1 Curb cut-outs should only be allowed when it will not obstruct a walkway or in any way lessen the width of a walkway.
- 2.2 The minimum width of a curb cut-out should be 0.90 M.
- 2.3 Curb cut-outs should have a gradient not more than 1:12.



OTHER VARIATIONS OF DROPPED CURB AT CORNERS



3. WALKWAYS AND PASSAGEWAYS

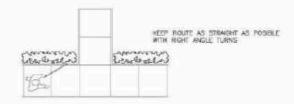
- Walkways should be kept as level as possible and provided with slip-resistant material.
- 3.2 Whenever and wherever possible, walkways should have a gradient no more than 1:20 or 5%.
- 3.3 Walkways should have a maximum cross gradient of 1:100.

- 3.4 Walkways should have a minimum width of 1.20 meters.
- If possible, gratings should never be located along walkways.
 - When occurring along walkways, grating openings should have a maximum dimension of 13 mm x 13 mm and shall not project more than 6.5 mm above the level of the walkway.
- 3.6 Walkways should have a continuing surface without abrupt pitches in angle or interruptions by cracks or breaks creating edges above 6.50 mm.



GRATINGS ON WALKWAYS

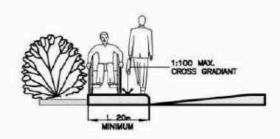
- 3.7 In lengthy or busy walkways, spaces should be provided at some point along the route so that a wheelchair may pass another or turn around. These spaces should have a minimum dimension of 1.50 m and should be spaced at a maximum distance of 12:00 m between stops.
- 3.8 To guide the blind, walkways should as much as possible follow straightforward routes with right angle turns.

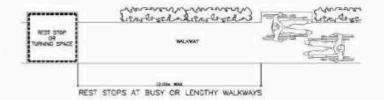


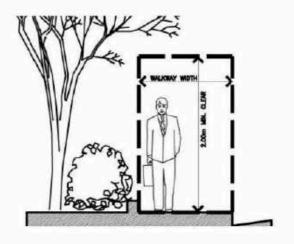
- 3.9 Where planting is provided adjacent to the walkway, regular maintenance is essential to ensure branches of trees or shrubs do not overhang walkways or paths, as not only do these present a particular danger to the blind, but they also reduce the effective footways width available to pedestrians generally.
- 3.10 Walkway headroom should not be less than 2.0 m and preferably higher.
- Passageways for the disabled should not be obstructed by street furniture,

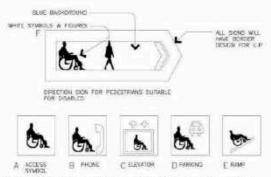
bollards, sign posts or columns along the defined route, as they can be hazardous.

WALKWAY

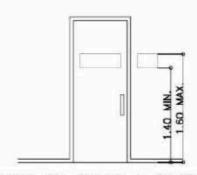








- 6.4 Should a sign protrude into a walkway or route, a minimum headroom of 2.0 meters should be provided;
- 6.5 Signs on walls and doors should be located at a maximum height of 1.60 M, and a minimum height of 1.40 meters. For signage on washroom doors, see C. Section 8.6.

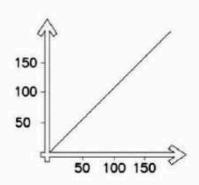


SIGNS ON WALLS & DOORS

6.6 Signages labelling public rooms and places should have raised symbols, letters or numbers with minimum height of 1 mm; braille symbols should be included in signs indicating public places and safety routes;

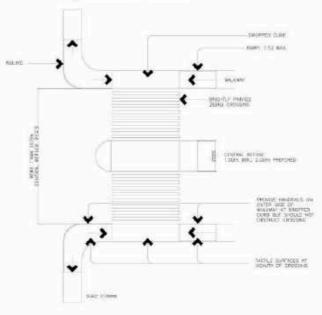


6.7 Text on signboards shall be of a dimension that people with less than normal visual acuity can read at a certain distance.

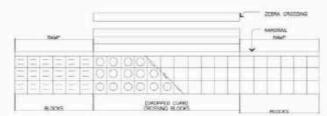


7. CROSSINGS

- 7.1 In order to reduce the exposure time to vehicular traffic, all at grade crossing should
 - 7.1.1 Be as near perpendicular to the carriageway as possible.
 - 7.1.2 Be located at the narrowest, most convenient part of the carriageway.
 - 7.1.3 Have central refuges of at least 1.5 m in depth and preferably 2 m, provided as a midcrossing shelter, where the width of carriageway to be crossed exceeds 10 m.
- 7.2 All crossings should be located close if not contiguous with the normal pedestrian desire line.



7.3 Provide tactile blocks in the immediate vicinity of crossings as an aid to the blind. The tactile surface has to be



sufficiently high enough to be felt through the sole of the shoe but low enough not to cause pedestrian to trip, or to effect the mobility of wheelchair users. See details of recommended pairing slabs below.

Note: Tactile strips formed from brushed or grooved concrete finishes have not been proven successful as they do not provide sufficient distinction from the normal footway surface and therefore should not be used.

- 7.4 The most beneficial form of crossing as far as any disabled are concerned is the light controlled crossing having pedestrian phases and synchronized audible signals and should, wherever possible, be provided in preference to other types of crossings as determined by the duly authorized agency.
- 7.5 The audible signal used for crossings should be easily distinguishable from other sounds in the environment to prevent confusion to the blind. A prolonged sound should be audible to warn the blind that the lights are about to change. (Design of such a system shall be developed by the Traffic Engineering Center.)
- 7.6 The flashing green period required for the disabled should be determined on the basis of a walking speed of 0.90 m/sec. rather than 1.20 m/sec, which is what is normally used. The minimum period for the steady green (for pedestrians) should not be less than 6 seconds or the crossing distance times 0.90 m/sec., whichever is the greatest.

B. PARKING

1. PARKING AREAS

1.1 Parking spaces for the disabled should allow enough space for a person to transfer to a wheelchair from a vehicle;

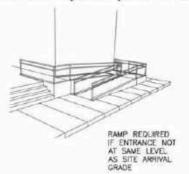
- 1.2 Accessible parking spaces should be located as close as possible to building entrances or to accessible entrances;
- 1.3 Whenever and wherever possible, accessible parking spaces should be perpendicular or to an angle to the road or circulation aisles;
- 1.4 Accessible parking slots should have a minimum width of 3.70 m.:
- 1.5 A walkway from accessible spaces of 1,20 m. clear width shall be provided between the front ends of parked cars;
- 1.6 Provide dropped curbs or curb cut-outs to the parking level where access walkways are raised;
- 1.7 Pavement markings, signs or other means shall be provided to delineate parking spaces for the handicapped;
- 1.8 Parking spaces for the disabled should never be located at ramped or sloping



C. INSIDE BUILDINGS AND STRUCTURES

1. ENTRANCES

1.1 Entrances should be accessible from arrival and departure points to the



interior lobby;

- 1.2 One (1) entrance level should be provided where elevators are accessible;
- 1.3 In case entrances are not on the same level of the site arrival grade, ramps should be provided as access to the entrance level;

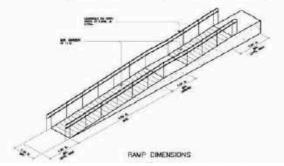


ENTRANCES WITH VESTIBULES

1.4 Entrances with vestibules shall be provided a level area with at least a 1.80 m. depth and a 1.50 m. width;

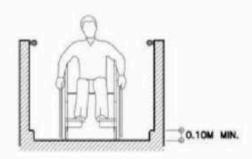
2. RAMPS

- 2.2 Changes in level require a ramp except when served by a dropped curb, an elevator or other mechanical device:
- 2.2 Ramps shall have a minimum clear width of 1.20 m;
- 2.3 The maximum gradient shall be 1:12;
- 2.4 The length of a ramp should not exceed 6:00 m. if the gradient is 1:12; longer ramps whose gradient is 1:12 shall be provided with landings not less than 1.50 m.;
- 2.5 A level area not less than 1.80 m. should be provided at the top and bottom of any



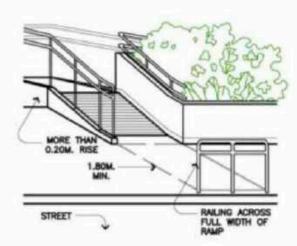
ramp:

2.6 Handrails will be provided on both sides of the ramp at 0.70 m. and 0.90 m. from the ramp level;



CURB HEIGHT AT RAMP

2.7 Ramps shall be equipped with curbs on both sides with a minimum height of 0.10 m.;



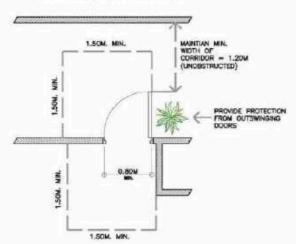
RAMPS & VEHICULAR TRAFFIC

2.8 Any ramp with a rise greater than 0.20 m. and leads down towards an area where vehicular traffic is possible, should have a railing across the full width of its lower end, not less than 1.80 meters from the foot of the ramp;

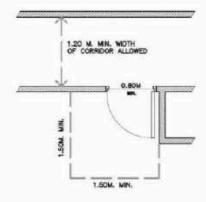
3. DOORS

- 3.1 All doors shall have a minimum clear width of 0.80 m;
- 3.2 Clear openings shall be measured between the surface of the fully open

- door at the hinge and the door jamb at the stop;
- 3.3 Doors should be operable by a pressure or force not more than 4.0 kg; the closing device pressure an interior door shall not exceed 1 kg.;
- 3.4 A minimum clear level space of 1.50 m x 1.50 m shall be provided before and extending beyond a door;
 - EXCEPTION: where a door shall open onto but not into a corridor, the required clear, level space on the corridor side of the door may be a minimum of 1,20 m. corridor width;
- 3.5 Protection should be provided from doors that swing into corridors;

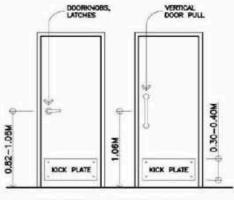


DOORS & CORRIDORS



- 3.6 Outswinging doors should be provided at storage rooms, closets and accessible restroom stalls;
- Latching or non-latching hardware should not require wrist action or fine finger manipulation;

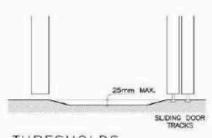
- '3.8 Doorknobs and other hardware should be located between 0.82 m. and 1.06 m. above the floor; 0.90 is preferred;
- Vertical pull handles, centered at 1.06 m. above the floor, are preferred to horizontal pull bars for swing doors or doors with locking devices;
- 3.10 Doors along major circulation routes should be provided with kick plates made of durable materials at a height of 0.30 m. to 0.40 m;



DOOR HARDWARE

4. THRESHOLDS

4.1 Thresholds shall be kept to a minimum; whenever necessary, thresholds and sliding door tracks shall have a maximum height of 25 mm and preferably ramped;



THRESHOLDS

5. SWITCHES

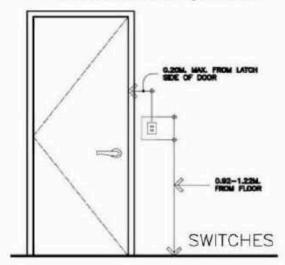
- 5.1 Manual switches shall be positioned within 1.20 m to 1.30 m above the floor;
- 5.2 Manual switches should be located no further than 0.20 from the latch side of the door

6. SIGNAGES

(See "SIGNAGES" under OUTSIDE & AROUND BUILDINGS.)

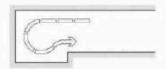
7. CORRIDORS

- 7.1 Corridors shall have minimum clear width of 1.20 m.; waiting areas and other facilities or spaces shall not obstruct the minimum clearance requirement;
- 7.2 Recesses or turnabout spaces should be



provided for wheelchairs to turn around or to enable another wheelchair to pass; these spaces shall have a minimum area of 1.50 m x 1.50 m. and shall be spaced at a maximum of 12.00 m.;

7.3 Turnabout spaces should also be provided at or within 3.50 m. of every dead end:





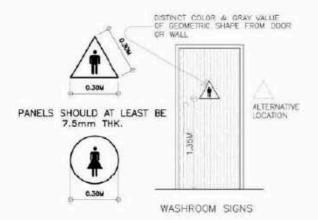
TURN ABOUT SPACES AT DEAD ENDS

7.4 As in walkways, corridors should be maintained level and provided with a slip resistant surface;

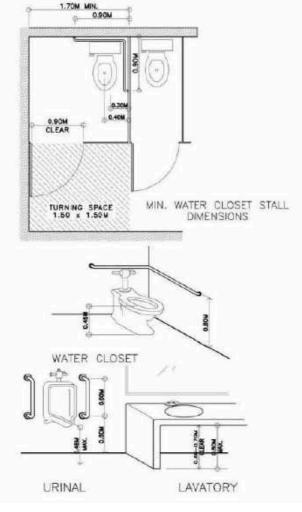
8. WASHROOMS & TOILETS

- 8.1. Accessible public washrooms and toilets shall permit easy passage of a wheelchair and allow the occupant to enter a stall, close the door and transfer to the water closet from either a frontal or lateral position;
- 8.2 Accessible water closet stalls shall have a minimum area of 1.70 x 1.80 mts. One movable grab bar and one fixed to the adjacent wall shall be installed at the accessible water closet stall for lateral mounting; fixed grab bars on both sides of the wall shall be installed for stalls for frontal mounting;
- 8.3 A turning space of 2.25 sq.m. with a minimum dimension of 1.50 m. for wheelchair shall be provided for water closet stalls for lateral mounting;
- 8.4 All accessible public toilets shall have accessories such as mirrors, paper dispensers, towel racks and fittings such as faucets mounted at heights reachable by a person in a wheelchair;
- 8.5 The minimum number of accessible water closets on each floor level or on that part of a floor level accessible to the disabled shall be one (1) where the total number of water closets per set on that level is 20; and two (2) where the number of water closets exceed 20;
- 8.6 In order to aid visually impaired persons to readily determine whether a washroom is for men or for women, the signage for men's washroom door shall be an equilateral triangle with a vertex pointing upward, and those for women shall be a circle; the edges of the triangle should be 0.30 m long as should be the diameter of the circle; these signages should at least be 7.5 mm thick; the color and gray value of the doors; the words "men" and "women" or the appropriate stick figures should still appear on the washroom doors for the convenience of the fully sighted;

Note: the totally blind could touch the edge of the signs and easily determine whether it is straight or curved;



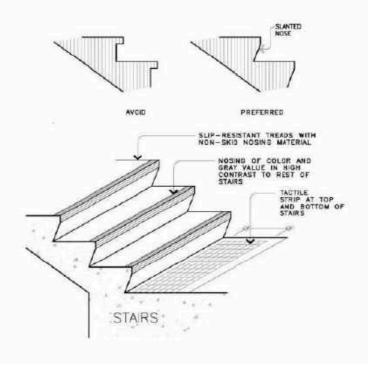
- 8.7 The maximum height of water closets should be 0.45 m.; flush control should have a maximum height of 1.20 mts.
- 8.8 Maximum height of lavatories should be 0.80 m. with a knee recess of 0.60 - 0.70 M. vertical clearance and a 0.50 m. depth.



8.9 Urinals should have an elongated lip or through type, the maximum height of the lip should be 0.48 m.

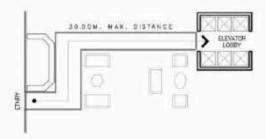
9. STAIRS

- 9.1 Tread surfaces should be a slip-resistant material; nosings may be provided with slip-resistant strips to further minimize slipping:
- 9.2 Slanted nosings are preferred to projecting nosings so as not to pose difficulty for people using crutches or braces whose feet have a tendency to get caught in the recessed space or projecting nosings. For the same reason, open stringers should be avoided.
- 9.3 The leading edge of each step on both runner and riser should be marked with a paint or non-skid material that has a color and gray value which is in high contrast to the gray value of the rest of the stairs; markings of this sort would be helpful to the visually impaired as well as to the fully sighted person;
- 9.4 A tactile strip 0.30 m. wide shall be installed before hazardous areas such as sudden changes in floor levels and at the top and bottom of stairs; special care must be taken to ensure the proper mounting or adhesion of tactile strips so as not to cause accidents;

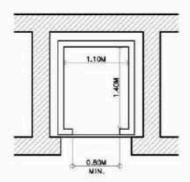


10. ELEVATORS

10.1 Accessible elevators should be located not more than 30.00 m. from the entrance and should be easy to locate with the aid of signs;



10.2 Accessible elevators shall have a minimum dimension of 1.10 m. x 1.40 m.;



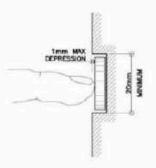
MIN. DIMENSIONS OF ELEVATOR

- 10.3 Control panels and emergency system of accessible elevators shall be within reach of a scated person; centerline heights for the topmost buttons shall be between 0.90 m to 1,20 m from the floor;
- 10.4 Button controls shall be provided with braille signs to indicate floor level; at each floor, at the door frames of elevator doors, braille-type signs shall be placed so that blind persons can be able to discern what floor the elevator car has stopped and from what level they are embarking from; for installation heights, see Section 6.6, Signages;



ELEVATOR CARS

10.5 Button sizes at elevator control panels shall have a minimum diameter of 20 mm and should have a maximum depression depth of 1 mm;



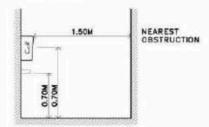
BUTTON SIZE

11. WATER FOUNTAINS

11.1 At least one (1) fountain shall be provided for every 2,000 sq.m. of floor area and there shall not be less than one (1) on each floor. Water spouts shall be at the front and shall be push-button centrolled. If wall-mounted, the maximum height of the water fountain shall be 0.85 m. from the floor to the ro.. Should the floor-mounted type be higher than 0.85 m. up to the rim, either provide paper cups or another lower fountain.

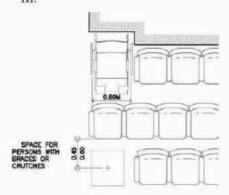
12. PUBLIC TELEPHONES

12.1 Provide a clear, unobstructed space of 1.50 m x 1.50 m in front of mallmounted and free-standing units and telephones mounted at the rear wall of alcoves or recesses. 12.2 Telephone booth door openings should have a minimum clear width of 0.80 m. with either outswing, folding or sliding doors, coin slots, dialing controls, receivers and instructional signs shall be locked at a maximum of 1.10 m. above the floor.



13. PLACES OF ASSEMBLY

13.1 Number of seating accommodations reserved for wheelchair users shall be in accordance with Section 7 of the Rule III

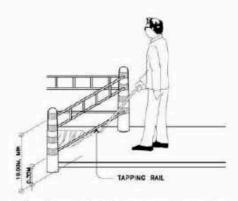


D. SAFETY

2. FENCING FOR ROADWORKS AND FOOTWORKS

All excavations, whether on the road or footway must be adequately protected, i.e. fenced. Whatever the type of fencing used, it is important the railings should incorporate the following features.

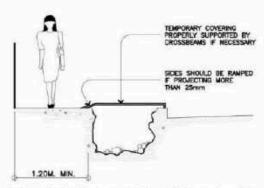
- 1.1 The height of the top of the rail should be at least 1.00 M. above the adjacent surface.
- 1.2 The railing should incorporate a tapping rail to assist the blind, and this should not be greater than 0.35 M. above adjacent surface.



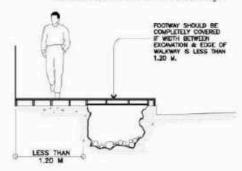
- 1.3 The fence should be strong enough to offer resistance should a blind person walk into it.
- 1.4 Gaps should not occur between adjoining fence lengths.

2. COVERS FOR EXCAVATIONS

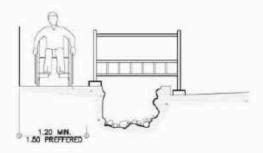
2.1 Excavations in the footway or carriageway where pedestrians may walk are covered over temporarily with properly constructed and supported boards to provide a temporary path for pedestrians.



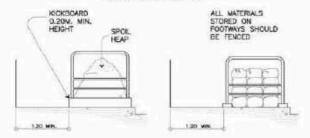
2.2 If the footway width will be reduced to less than 1.20 because of the excavation, the temporary covering should extend across the whole of the footway.



- 2.3 Minimum dimensions at obstructions
 - 2.3.1 Effective width of footways past any obstruction should not be less than 1.20 M.



2.3.2 If unavoidable, loose materials temporarily stored on footways must be properly fenced and prevented from encroaching onto the main footway by the use of a kickboard at least 0.20 M, high which will also serve as a tapping board for the blind.



SIGNAGE FOR ROADWORKS ON THE CARRIAGEWAY

3.1 Temporary signs used to warn of roadworks should be carefully located and should not cause any inconveniences to pedestrians, particularly the disabled.



 Signs should be located on verges or similar whenever these are available.

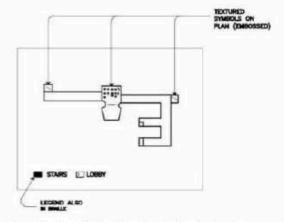


3.1.2 Signs should not reduce the available footway width to less than 1.20 M.



4. LOCATION OF EMERGENCY EXIT

4.1 Wall mounted or free standing tablets with an embossed plan configuration of the building which also shows the location of the lobby, washrooms and emergency exits of the building (indicated by different textures with corresponding meanings) should be provided either in front of the building or at the main lobby. The markings of this tablet should be readable by both the fully sighted and the blind persons.



4.2 Flashing light directional signs indicating the location(s) of fire exit shall be provided at every change in direction with sufficient power provided in accordance with the provisions for emergency lighting under Section 3.410

of P.D. NO. 1185 (The Fire Code of the Philippines)

Note: P.D. No. 1185 has already been replaced by Republic Act (R.A.) No. 9514. otherwise known as The 2008 Fire Code of the Philippines (FCP) and its 2009 Implementing Rules and Regulations (IRR). The FCP and its IRR are implemented/ enforced by Department of Interior and Local Gvernment (DILG). Together with Batas Pambansa (B.P.) Bilang 344, these form part of the Referral Codes (RC) of Presidential Decree (P.D.) No. 1096, otherwise known as the 1977 National Building Code of the Philippines (NBCP) and its 2004 Revised IRR, which in turn. are implemented/ enforced by the Department of Public Works and Highways (DPWH).

5. AUDIBLE AND VISIBLE ALARM SYSTEM

- 5.1 Audio-visual alarm systems shall be provided in all fire sections, as defined under P.D. NO. 1185 otherwise known as The Fire Code of the Philippines, of buildings in accordance with the guidelines provided under Section 3.503 of the same.
- 5.2 For buildings of residential occupancies, i.e. Groups A and B, as defined under Section 701, of Chapter 7 of P.D. NO. 1096 otherwise known as the "The National Building Code of the Philippines", the provision of "VIBRA-ALARMS" for all occupants who are either deaf or hearing-impaired shall be compulsory. Nothing follows.

OVPD-ODPI TEAM

ELVIRA A. ZAMORA

Vice President for Development

ARCH. ENRICO B. TABAFUNDA Director, ODPI

ARCH. ARMAND MICHAEL R. EUSTAQUIO ENGR. HARVEY O. BISA RICHMON M. PANCHO



UNIVERSITY OF THE PHILIPPINES OFFICE OF THE VICE PRESIDENT FOR DEVELOPMENT