



APPROACH TO MYANMAR NATIONAL BUILDING CODE 2020

CHAPTER 2.7 ACCESSIBILITY



Presented By- Dr.Aung Sea Sar

Ph.D(Architecture)

At Federation of Myanmar Engineering Society

12.3.2023

ABSTRACT: CHAPTER 2.7- ACCESSIBILITY

The issue of accessibility for the disabled in the urban environment was given due attention and this Code recommended in city planning and building and construction legislation.

For many City-dwellers, today's modern towns and cities may be convenient and fascinating places for living and working, but for disabled persons encounter many obstacles that prevent them from moving about freely and safely.

We take into account the conditions that facilitate the movement of disabled persons and ensure their safety, including in the design of infrastructural services, transport and the entrances and interiors of buildings.

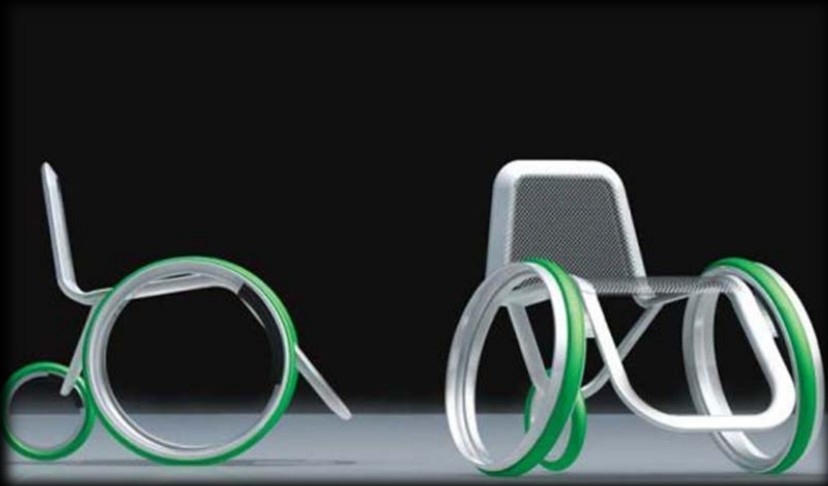
In order to address and promote Barrier Free Environment in Myanmar, the TWG2 group for Architecture and Urban Design in MNBC Code, include this important issue in chapter 7 "Accessibility" .



2.7 ACCESSIBILITY

2.7.1 Scope

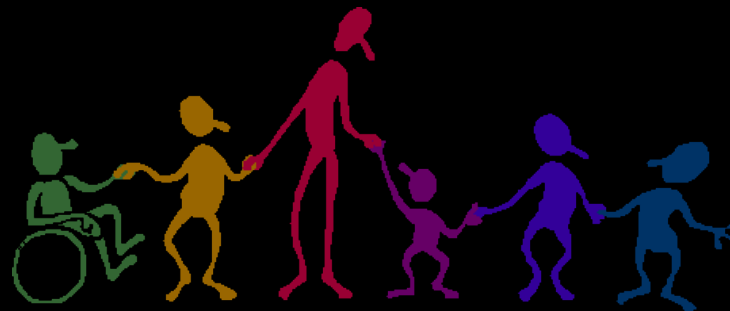
The provisions of this chapter shall control the design and construction of facilities for accessibility to physically disabled persons.



2.7.2 Scoping Requirements

All **public buildings** shall be accessible for the meant for handicapped persons and must have minimum one accessible toilet comply with this chapter.

Minimum provision for disabled persons **based on building types** shall be as per following table.



- **TABLE 2.7.2 SCOPING REQUIREMENTS**



Type of Building	Minimum provision
All public transportation building	At least one space shall be accessible to use public transport.
Post offices, banks and financial service institutions	At least one accessible service desk shall be provided for every 10 service desk.



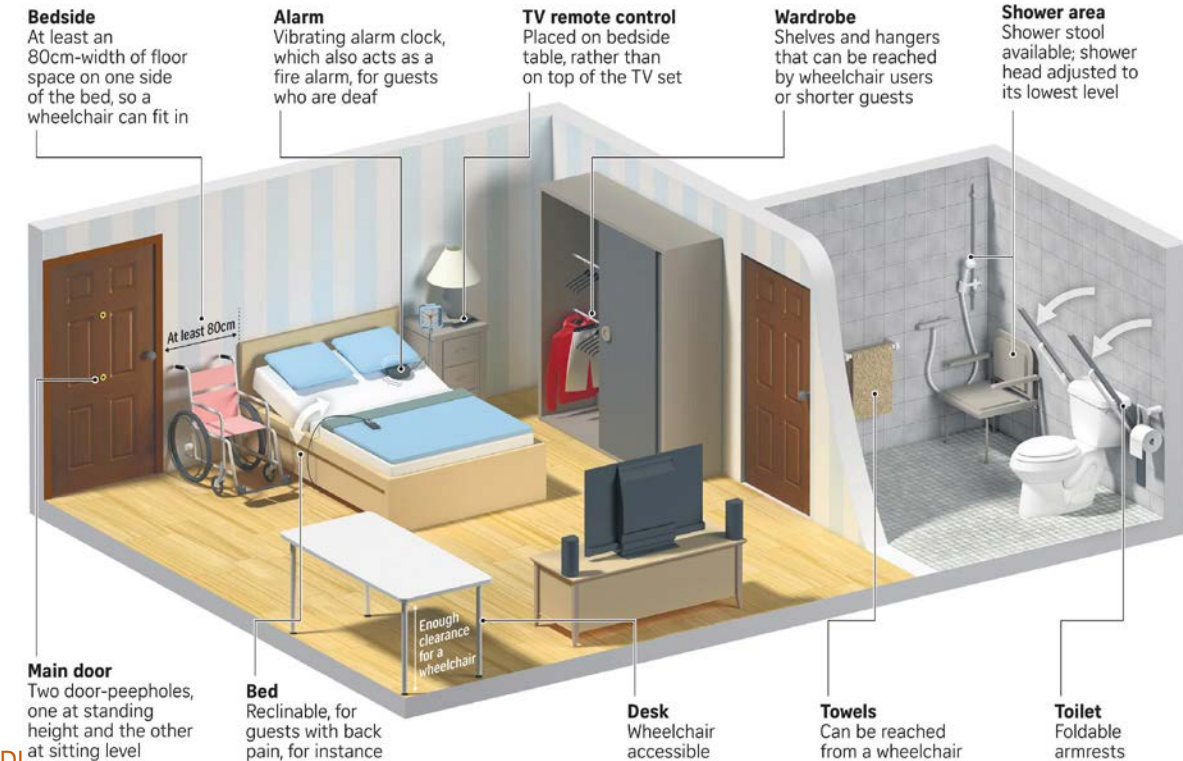
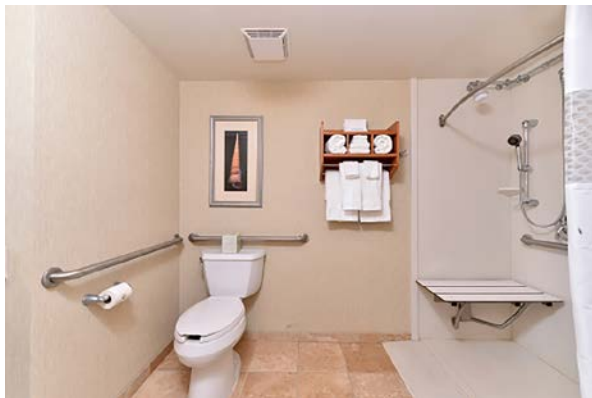
• TABLE 2.7.2 SCOPING REQUIREMENTS



Type of Building	Minimum provision
Hotels	At least one guest room shall be provided for every 250 guestrooms or part and thereof. Rooms designated for wheelchair users should, where possible, be placed at ground level so as to have a direct means of escape in case of fire .

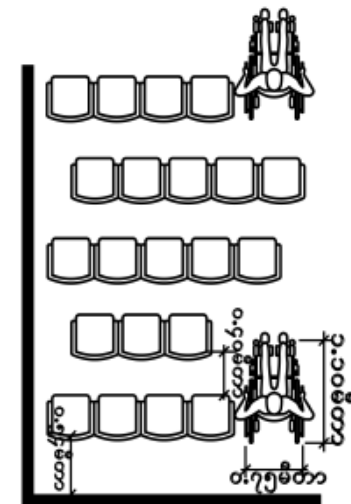
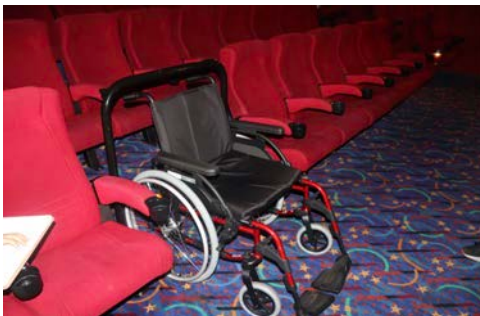
An accessible room at a Scandic hotel

At least 10 per cent of rooms in new hotels at Scandic, a Sweden-based hotel chain, are "accessible rooms". These rooms have features which can benefit all guests, including people with disabilities and the elderly.



Source: SCANDIC HOTELS GROUP STRAITS TIMES GRAPHICS

• TABLE 2.7.2 SCOPING REQUIREMENTS



Concert halls, Stadium, Cinema and theatres, sport buildings and other places of public assembly.

Accessible entrances, exists, aisles and main community or public gathering areas.
Accessible toilet facilities should be nearby.
At least one wheel chair space shall be provided for every 100 seats or part thereof.

Religious Building (If occupancy load is more than 1000)

The main worship shall be made accessible in accordance with this chapter.

Shopping Mall (if ground floor area is more than 10,000sq-ft)

At least ground floor shall be accessible in accordance with 2.7.3.



• TABLE 2.7.2 SCOPING REQUIREMENTS



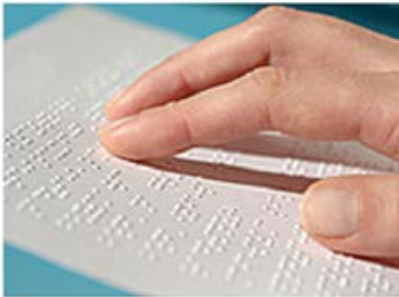
School/ Educational buildings

At least **ground floor** shall be accessible in accordance with 2.7.3.
All **teaching, administrative and common areas** should be accessible to a **wheelchair user**.
Suitable arrangements should be made for stepped lecture halls or auditoriums.

Hospitals and health facilities

All **entrances** should be accessible to a **wheelchair user**.
All rooms and administrative departments should be accessible for the benefit of **patients, disabled visitors and disabled staff members**.

Libraries



All **open book stack, library facilities and equipment** should be accessible.
A special room should be provided for **sightless and for hearing-impaired people** who need assistance while reading.



• TABLE 2.7.2 SCOPING REQUIREMENTS

Food Centres, Cafeterias and restaurants



Accessible entrance.

A minimum of **1 table** without stools or seats attached to the floor for every **10 tables**.

Stools and high tables are not suitable for wheelchair users.

Low tables should be provided as well.

In self-service restaurants tray slides and counters should be mounted approximately **0.90 m from the floor**.

Car parks



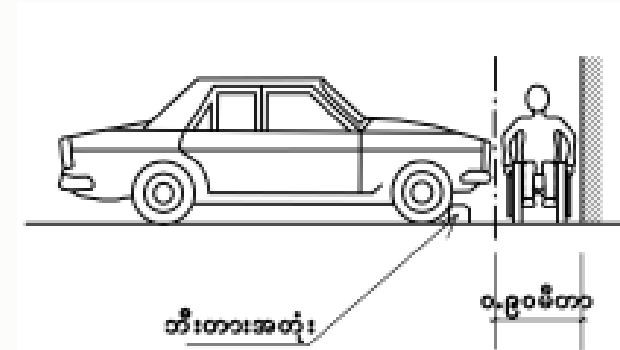
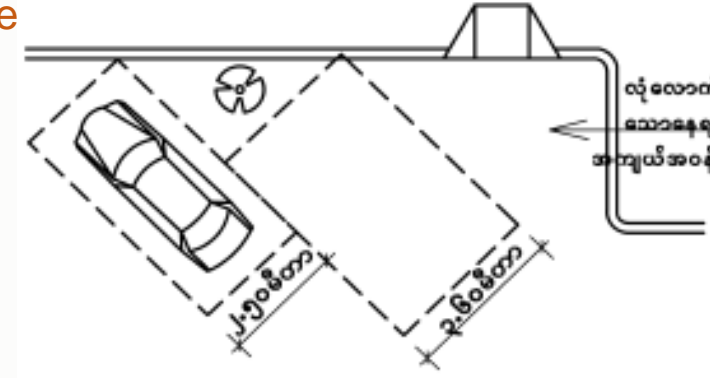
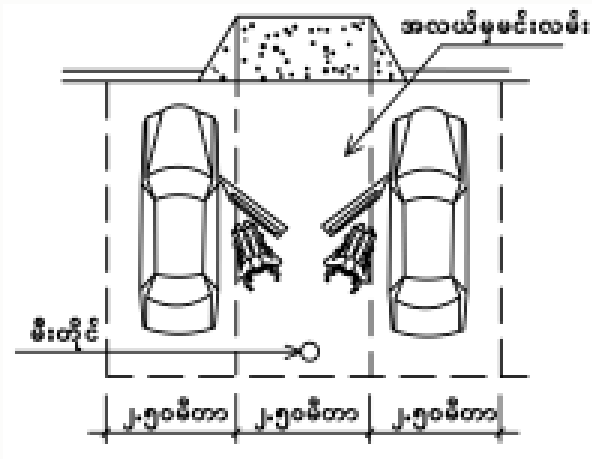
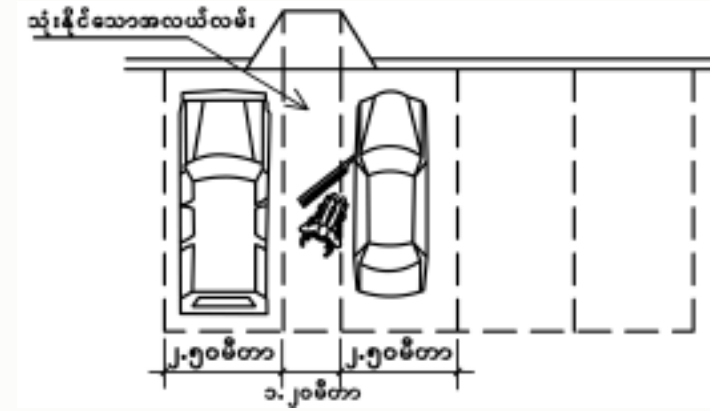
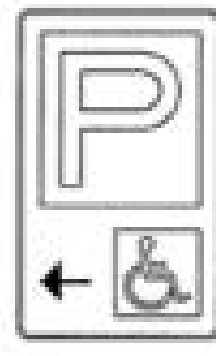
At least **one car parking** stall shall be reserved for first **100 parking stall** and at least stalls shall be provided if the parking lots is more than 100.

- 2.7.3 Minimum Requirements

- 2.7.3.1 Parking Lot

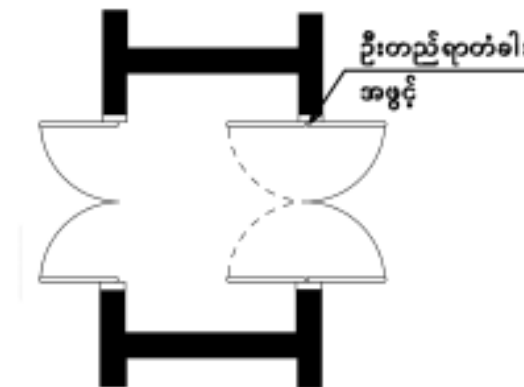
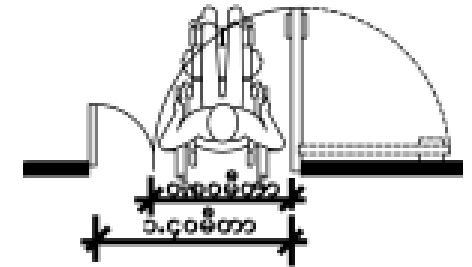
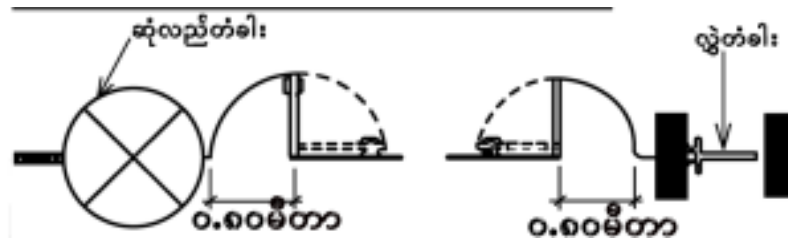
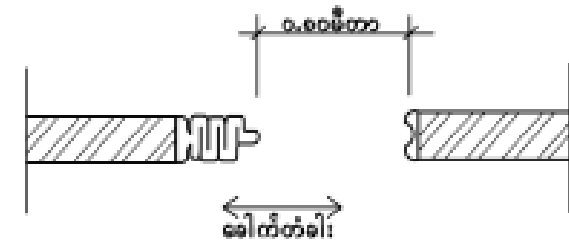
a) Minimum size of 16ft long and 11 ft wide parking lot shall be provided in accordance with 2.7.2.

b) Accessible parking lots shall be located as close as possible to accessible entrance



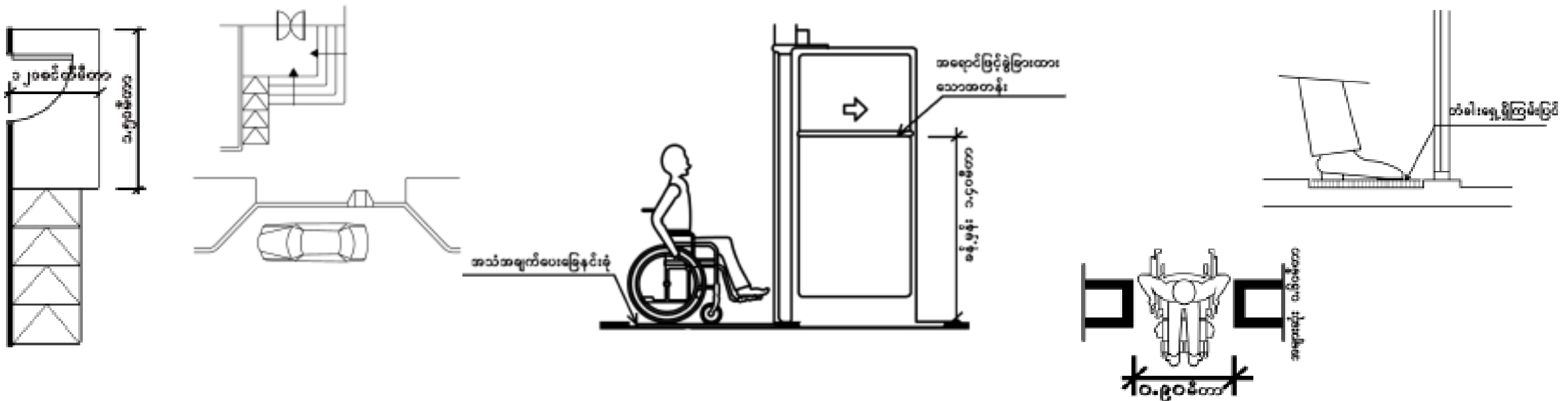
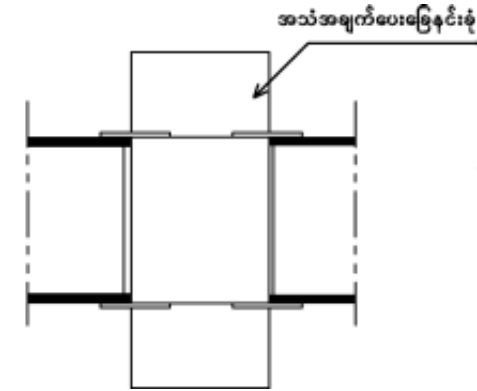
- **Entrances and doors**

- Entrance doors can be either the **sliding type** or the **swinging type**.
- **Revolving doors** are not suitable for the use of disabled people or people with prams.



- **Entrances and doors**

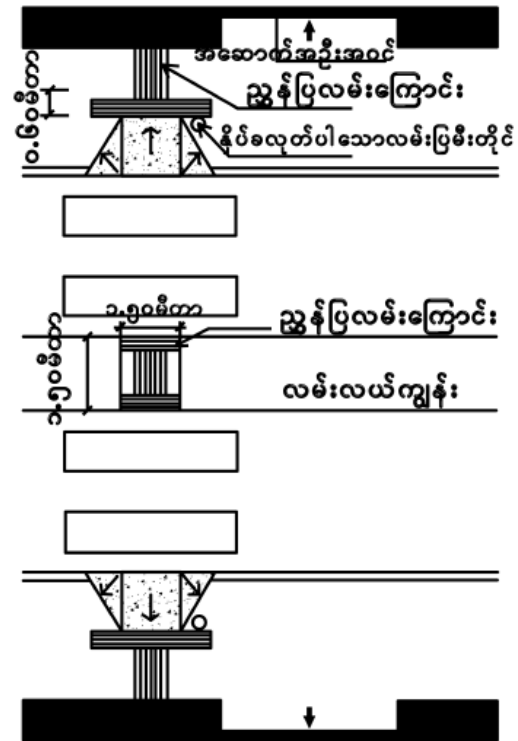
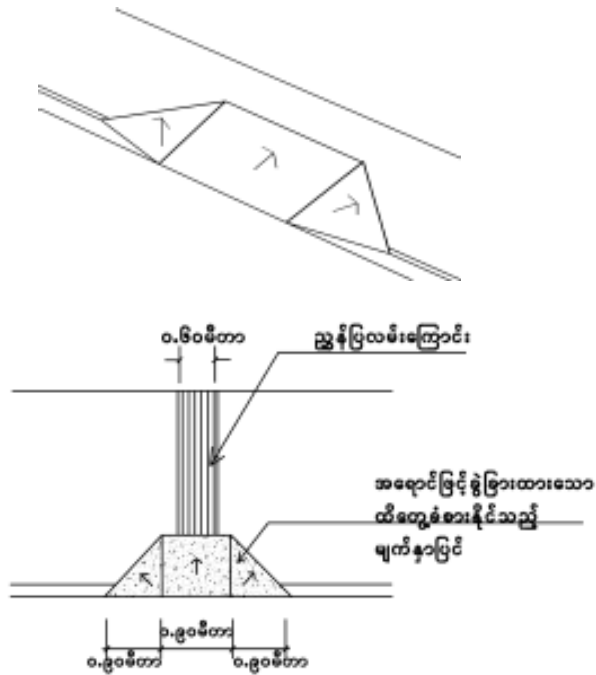
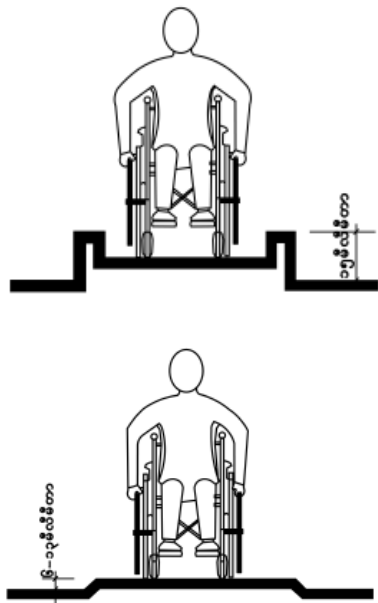
- For double-leaf doors, at least one leaf should have a minimum clear width of 2ft 10 inches.
- At least one accessible entrance shall be provided near to parking lot reserved for disable persons.
- Clear opening of doors for the wheelchair shall be minimum 3 ft.
- Door handles shall be easily handled and lever handles are preferred to door knobs.
- Door handles and other hardware shall be located not more than 3ft6in from finished floor and not less than 3ft.
- Minimum clear space of 4ft 6in x 4ft 6in shall be provided where a door opens against the direction of approach.

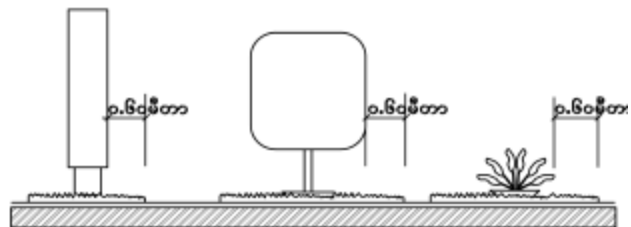
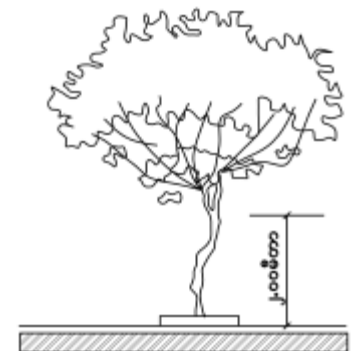
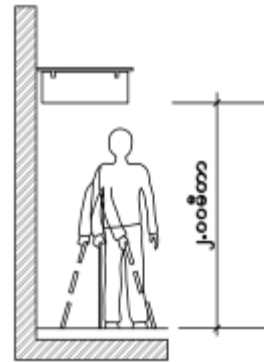
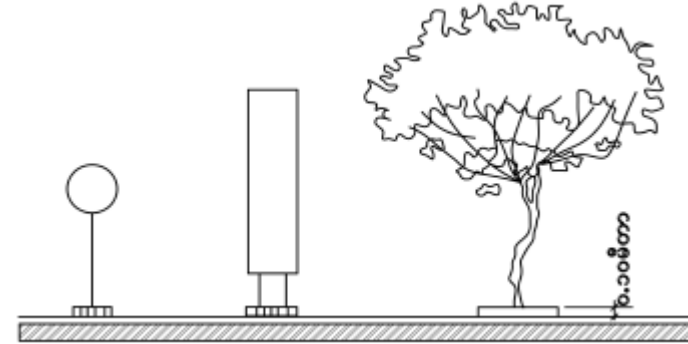
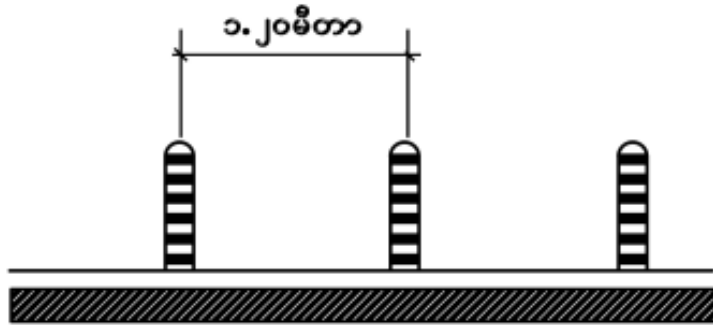
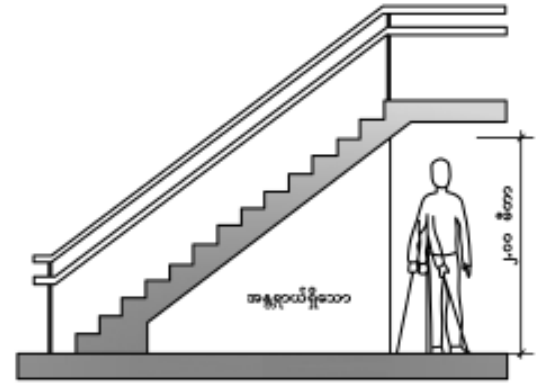
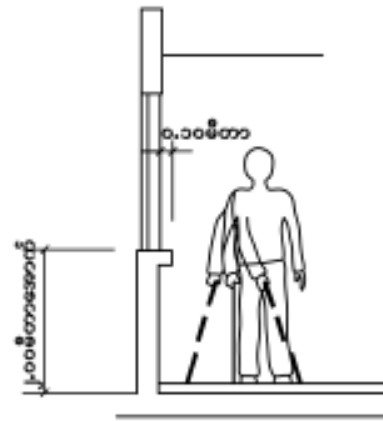
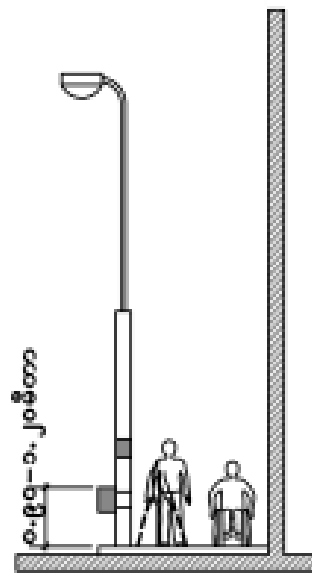
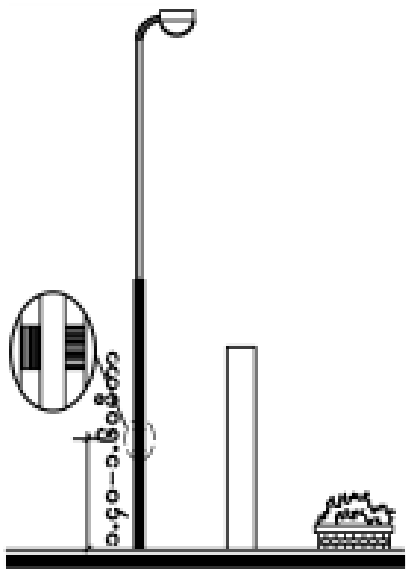




2.7.3.2 Public Areas

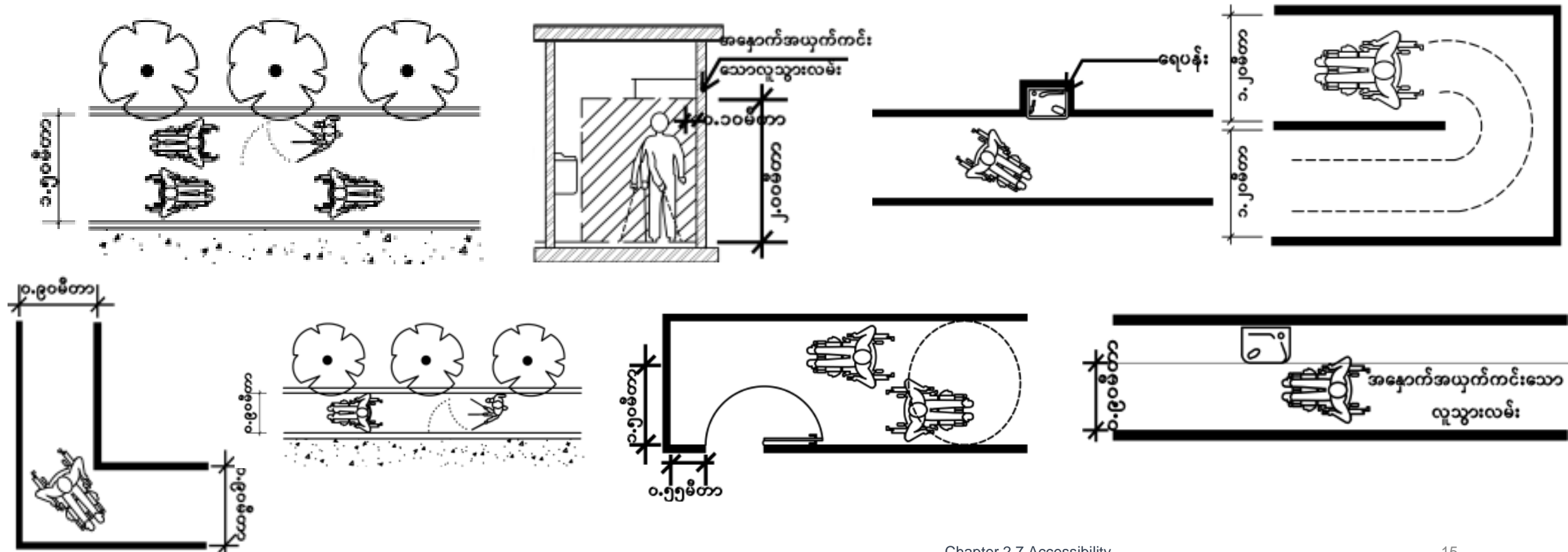
All public areas shall be accessible for the disabled persons with barrier free access.





2.7.3.3 Corridors and Walk ways

- a) Minimum width of corridor and walkway shall be 4ft and waiting area
- b) Turn about , minimum space of 4ft 6in x 4ft 6in shall be provided at or within 12ft of dead end and in front of accessible doors along corridor.
- c) Recesses or turn about shall be spaced at a maximum of 40ft interval.



2.7.3.4. Guiding/ floor material

The floor material to guide or to warn the visually impaired persons with a change of color or material with conspicuously different texture and easily distinguishable from the rest of the surrounding floor materials is called **guiding or warning floor material**.

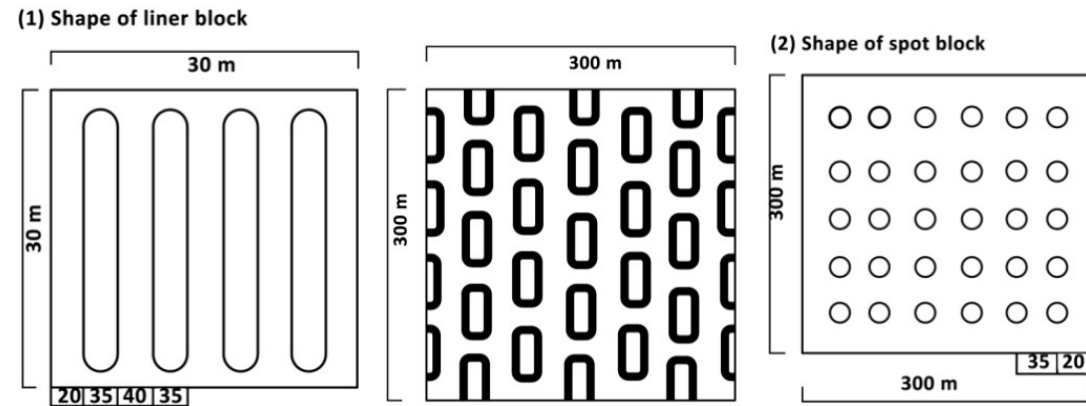
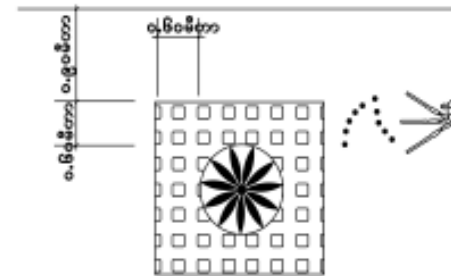
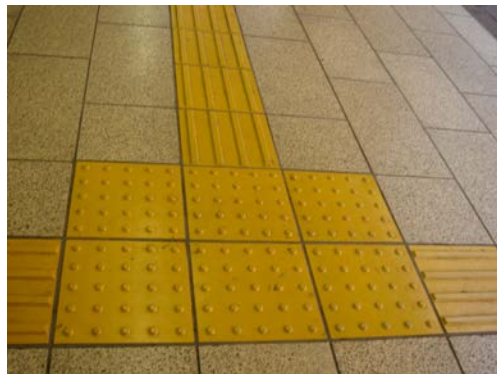
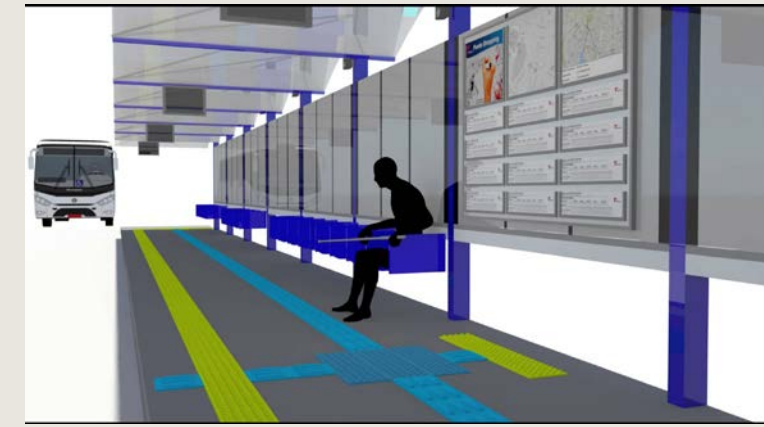
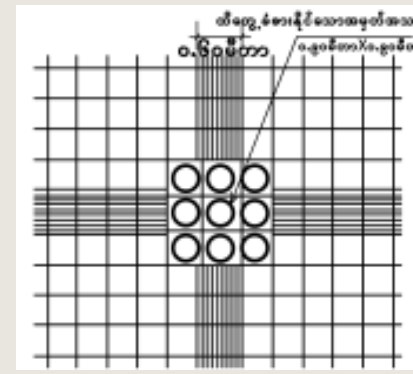
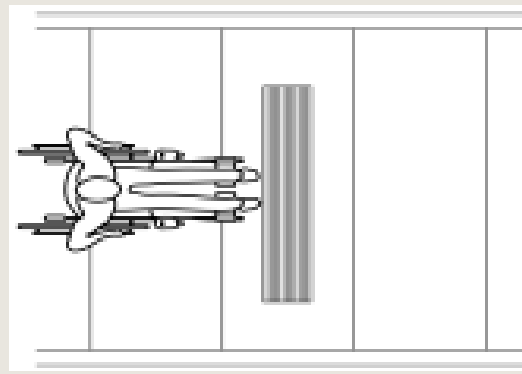
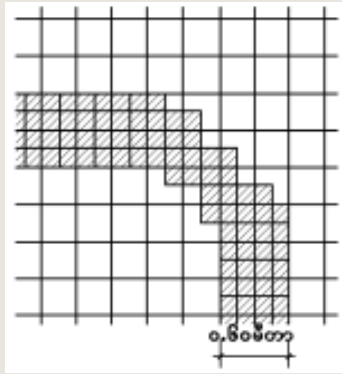


Fig: 2.7.3.4 Shapes of guiding blocks for persons with impaired vision



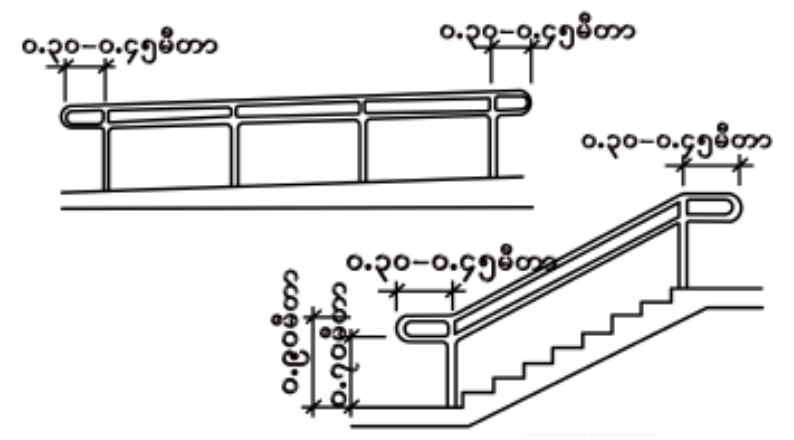
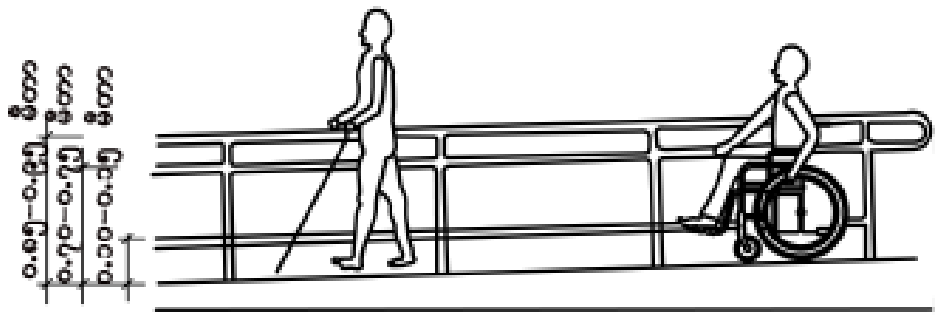
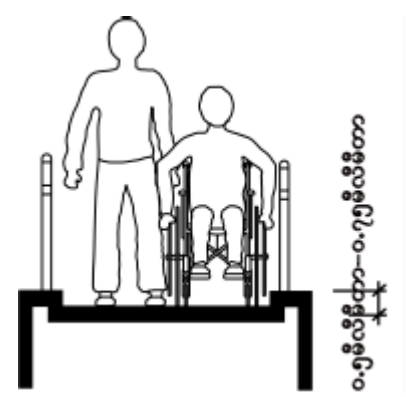
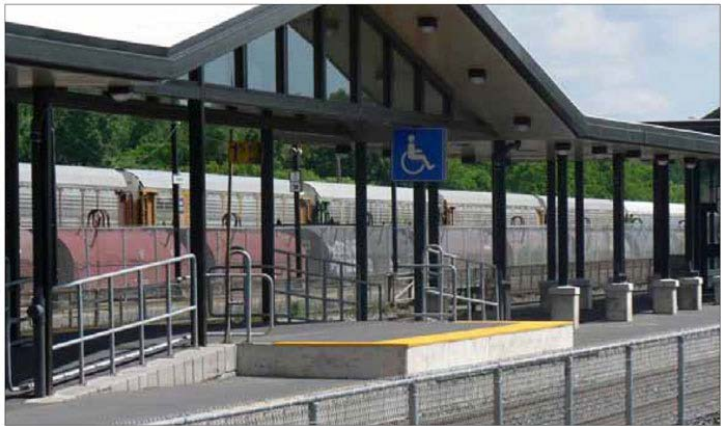
This floor material shall be provided in the following areas:

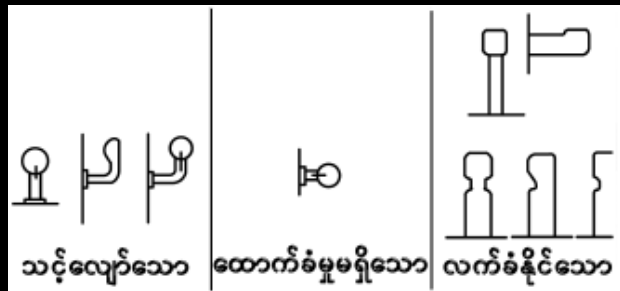
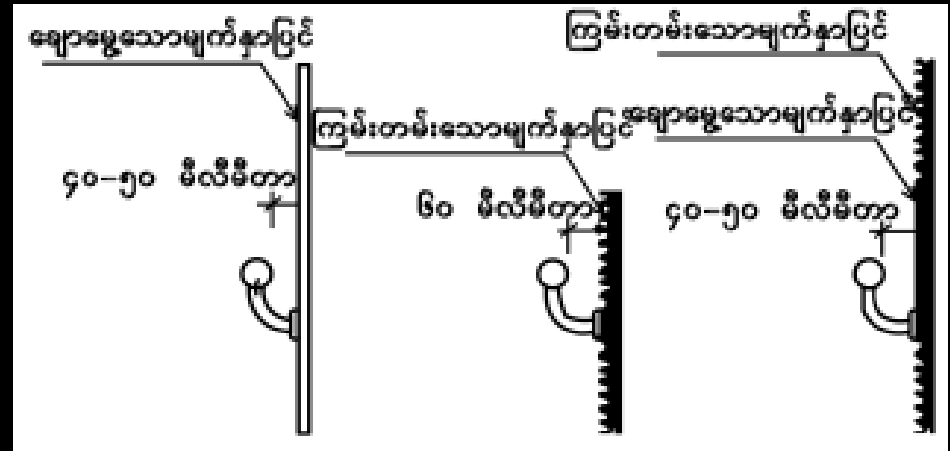
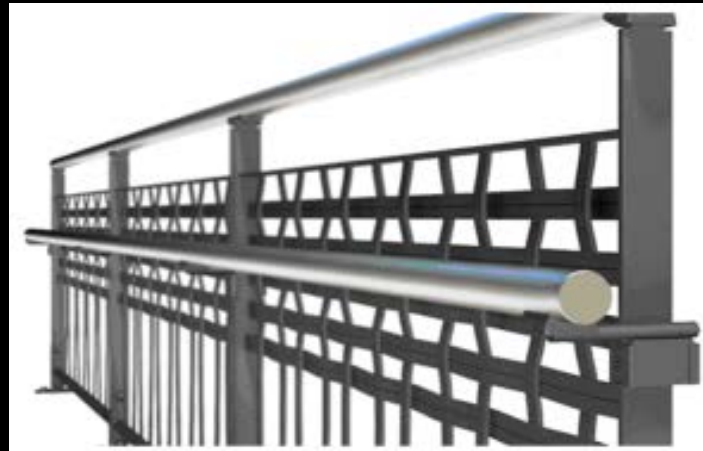
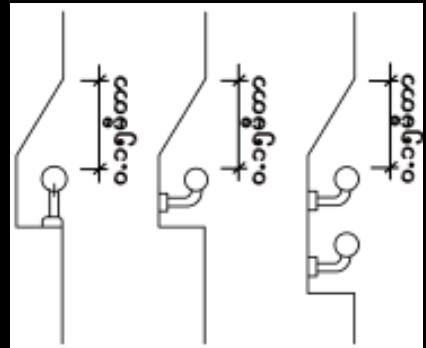
- a. The access path to the building and to the parking area.
- b. The landing lobby towards the information board, reception, lifts, stair-cases and toilets
- c. Immediately at the beginning/end of walkway where there is a vehicular traffic.
- d. At the location abruptly changing in level or beginning/end of a ramp.
- e. Immediately in front of an entrance/exit and the landing.
- f. The marking strip width should not be less than 0.60 m.



2.7.3.5 Handrail

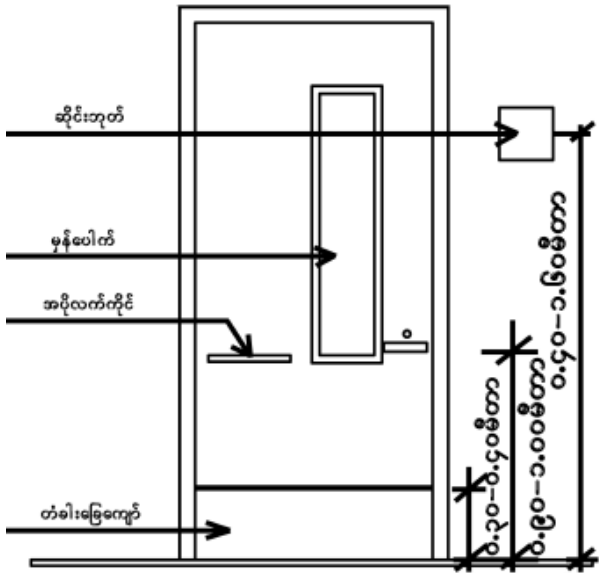
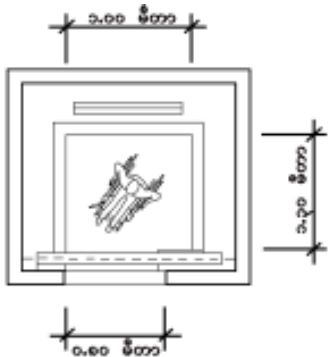
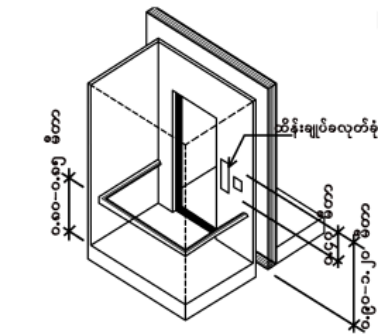
- a) All grip rails and handrail shall be not less than 1 in diameter and not more than 2 in. and it shall have minimum 1.75 in. spacing from the surface of doors and walls.
- b) Handrails must be provided on both sides of the ramp and should not be installed beyond the width of any crossing not to obstruct pedestrian flow.





2.7.3.6 Buttons and switches

All buttons for the wheelchair bound such as switches, controls and lift buttons shall be located at not more than 4ft 9 in and not less than 3ft 3 in.



2.7.3.7. Signage

All types of signs should be visible, clear, simple, easy to read and understand at night.

Signs should not be placed behind glass because of possible reflection.

Accessible spaces and facilities should be identified by the international symbol of accessibility (see fig :)

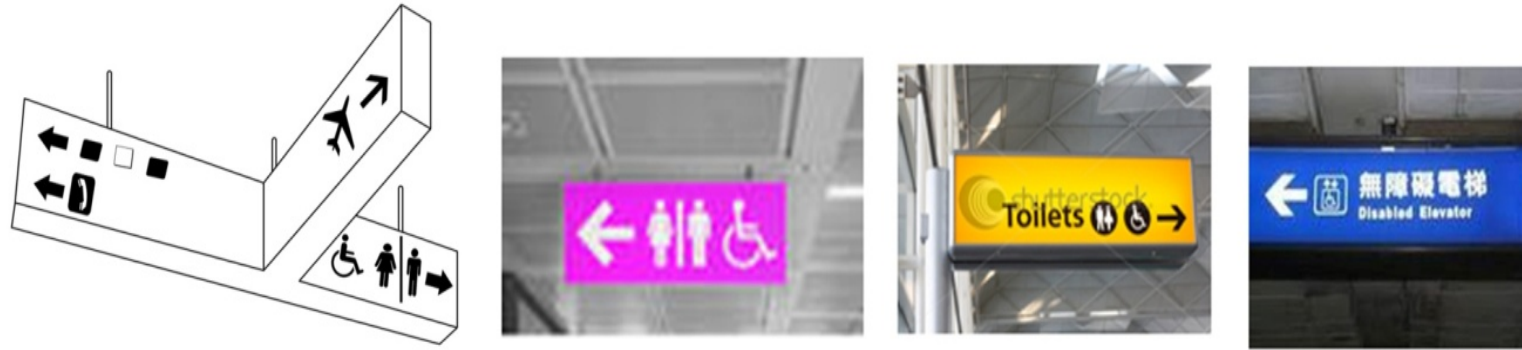


Fig : 2.7.3.7b. Information boards in concourse



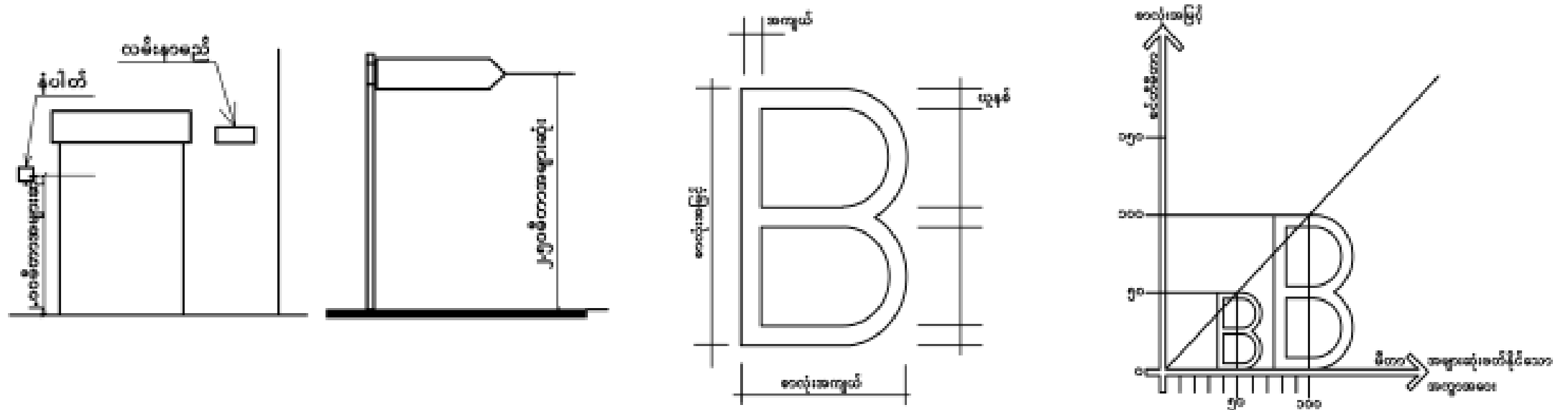


The symbol is composed of a wheelchair figure with either a square background or a square border (see fig.)



Fig : 2.7.3.7c. The international symbol of accessibility

The information board should be made easily readable by using sufficiently large text size, distinct contrast and illumination.



For hearing impaired persons, an electronic sign board of appropriate size & height should be displayed on each platform at conspicuous location for all announcements.

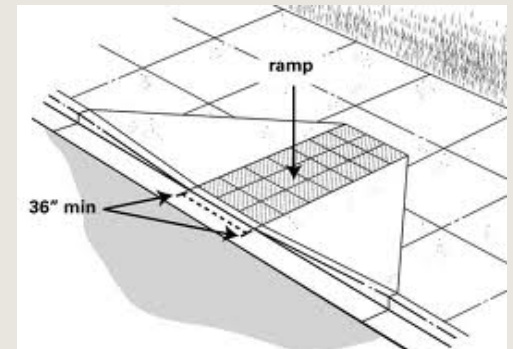
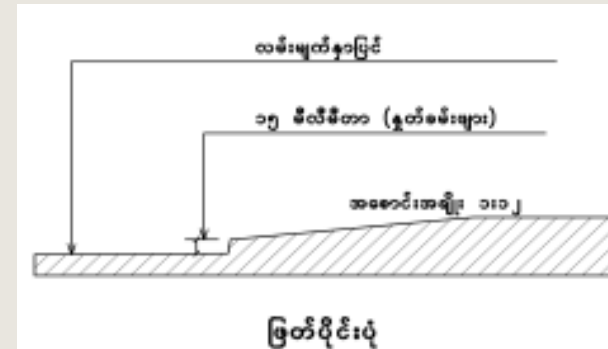
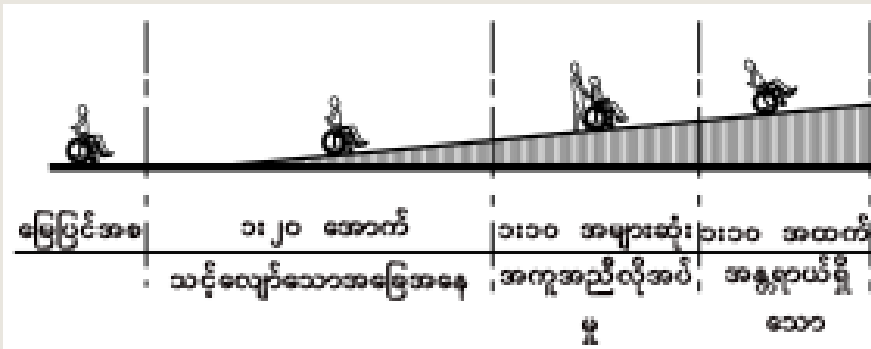
Visually impaired persons make use of other senses such as hearing and touch to compensate for the lack of vision.

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.



2.7.3.8 Ramps

- All ramps meant for the wheelchairs must be the slopes less than 1:10 (rise: run ratio) and the minimum 4 ft. clear width of ramp shall be provided.
- The maximum horizontal run of ramp is 30 ft. and minimum 6 ft. wide of landing shall be provided at every 30 ft. horizontal run.
- If horizontal run is less than 1 ft. the ramp gradient can be steeper till up to 1:8.
- The ramp surface should be hard and non-slip.



2.7.3.9. Stairs

Circular stairs and stepped landings should be avoided.

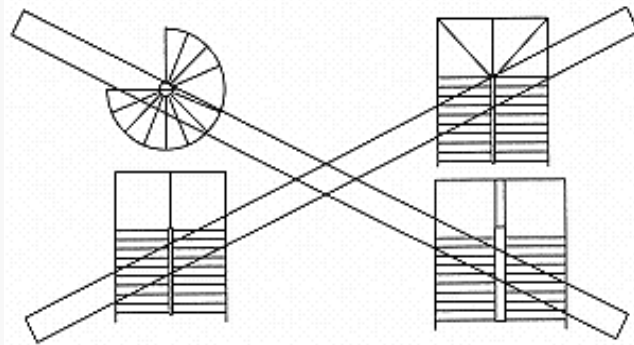
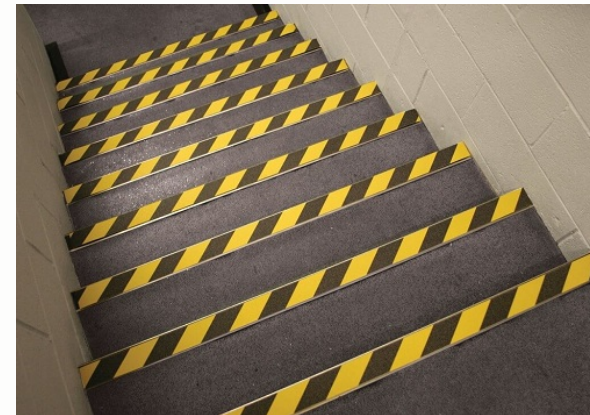
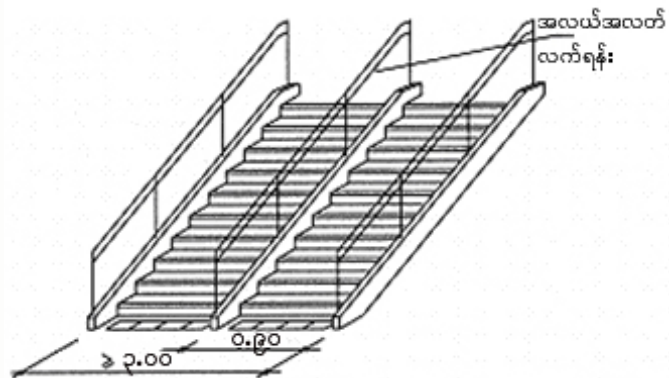
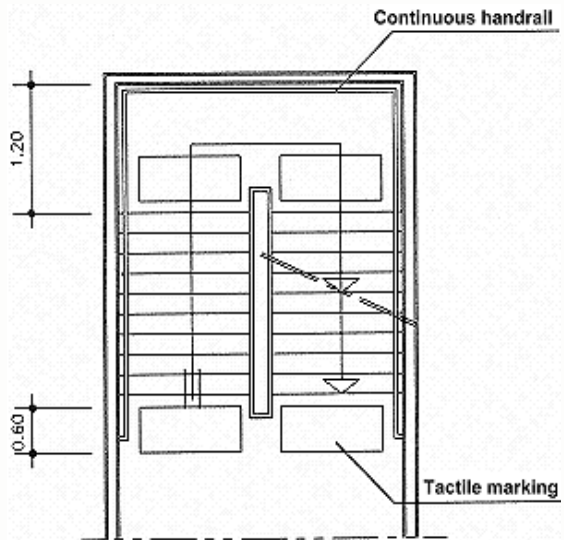
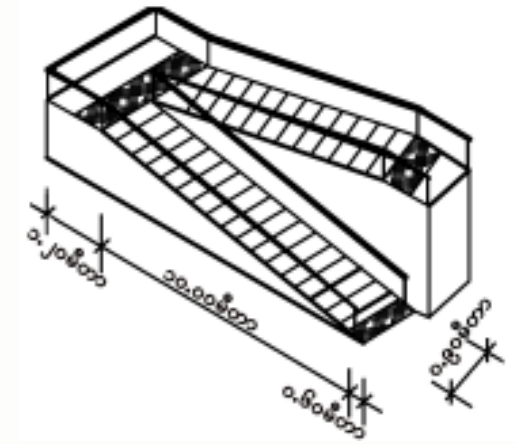
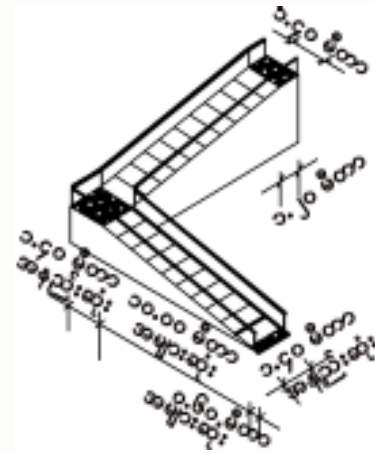
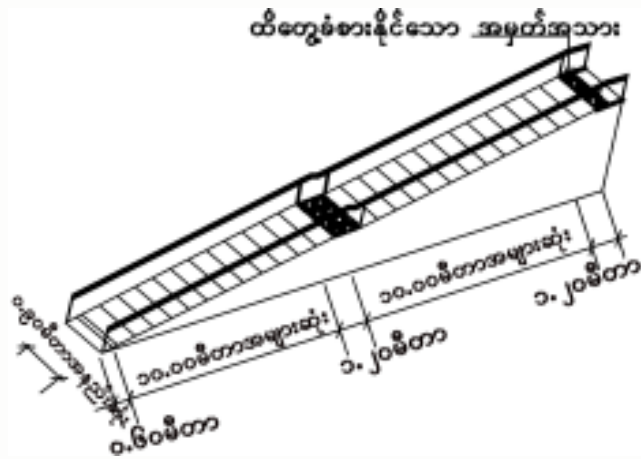


Fig : 2.7.3.9a. Circular stairs and stepped landings



The edges of stairs should be painted in a contrasting color for the benefit of poor- sighted users.





- 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.

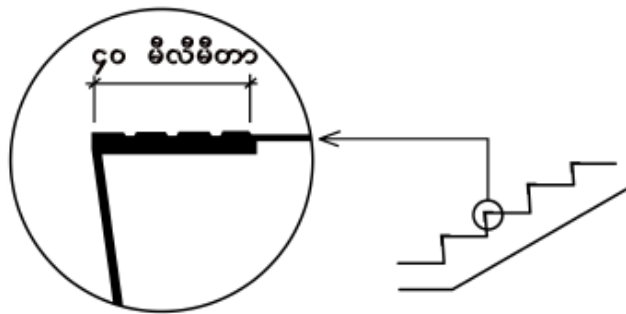
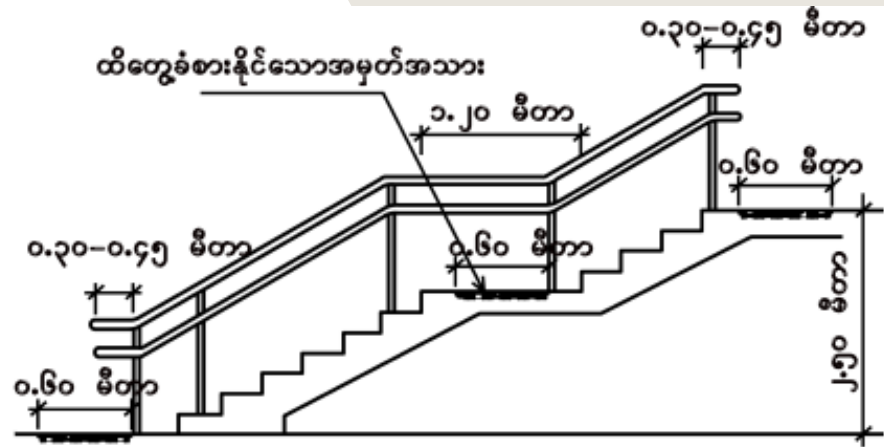
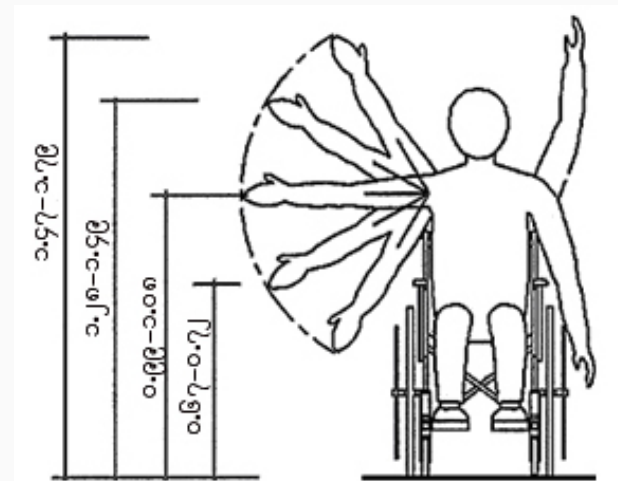
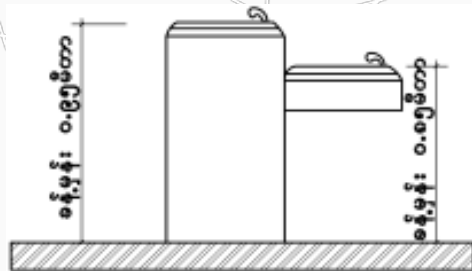
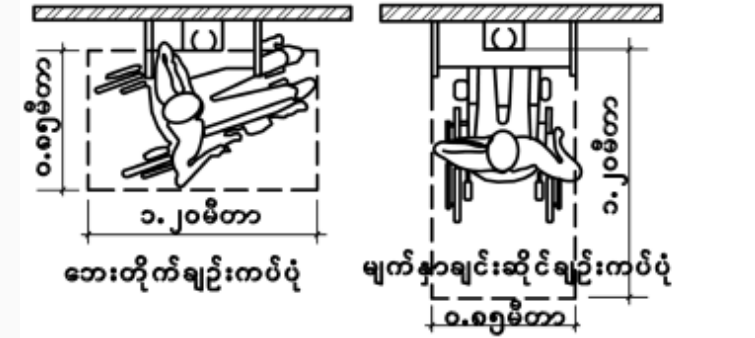
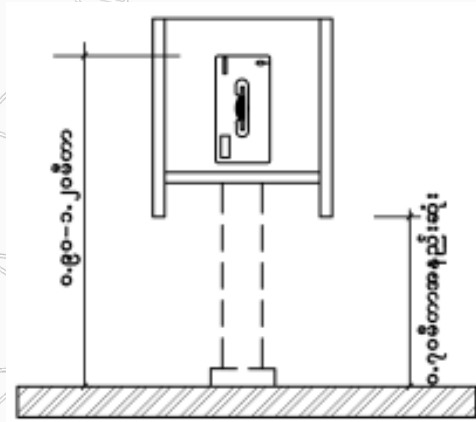


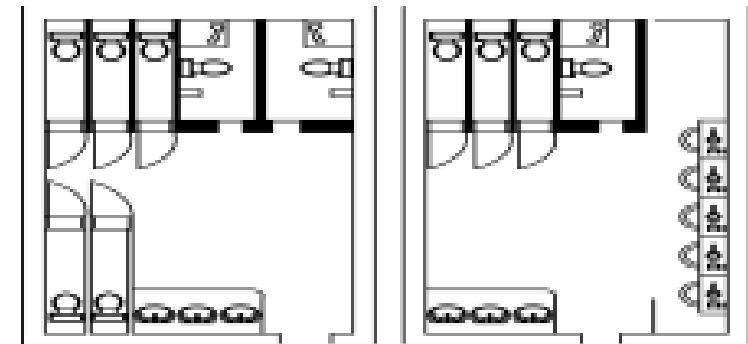
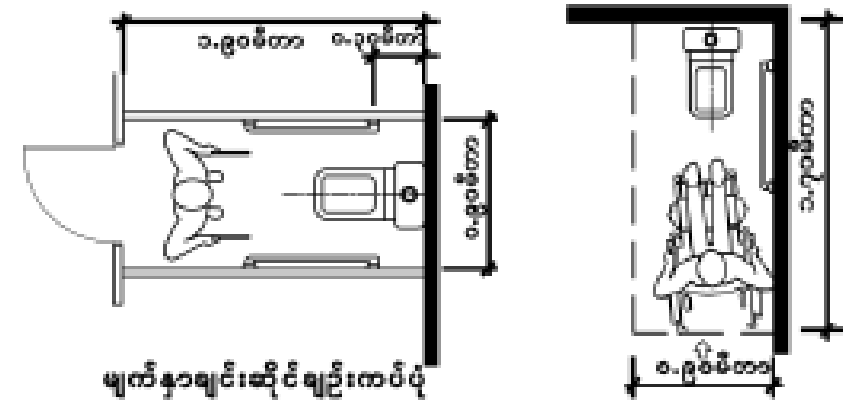
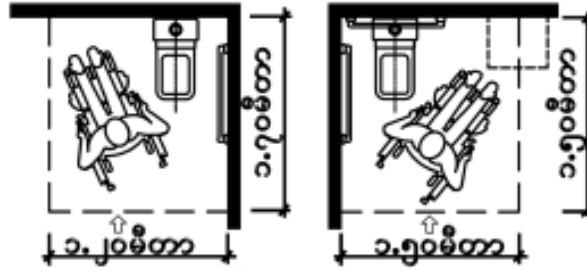
Fig : 2.7.3.9d. Slip-resistant nosing



2.7.3.10 Counter and desk

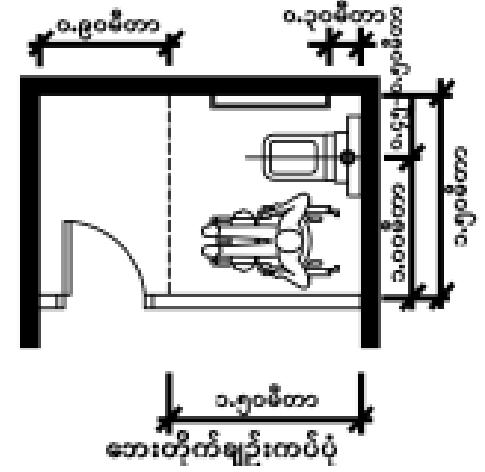
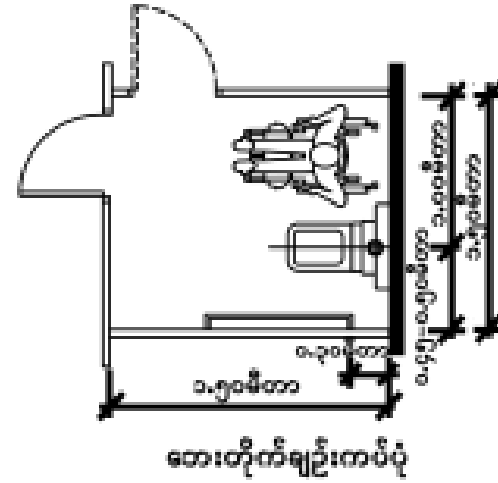
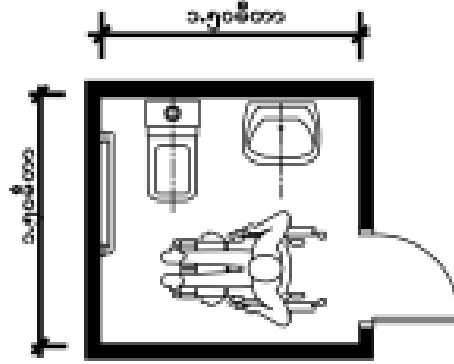
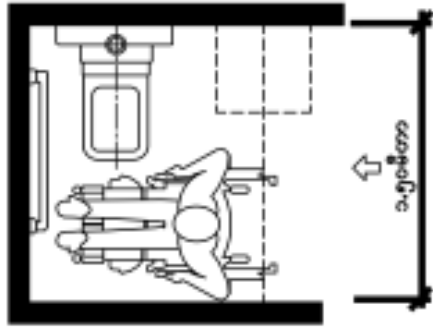
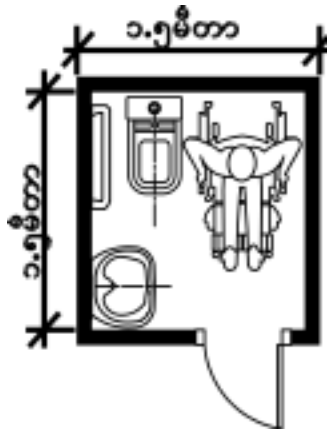
Writing or service counters for disabled person shall be not more than 2ft. 5 in. high and clear space below counter shall have minimum dimensions of 3 ft. wide x 1 ft. 9 in. deep x 2 ft.5 in. high.

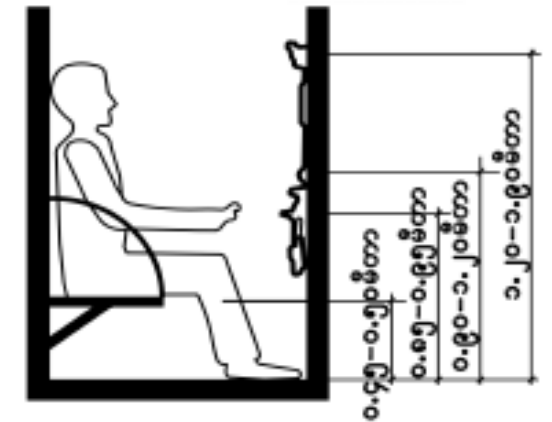
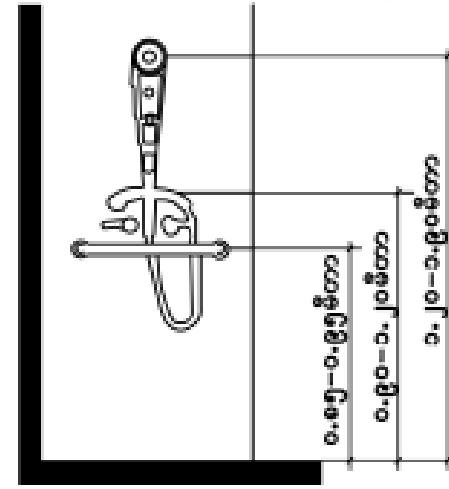
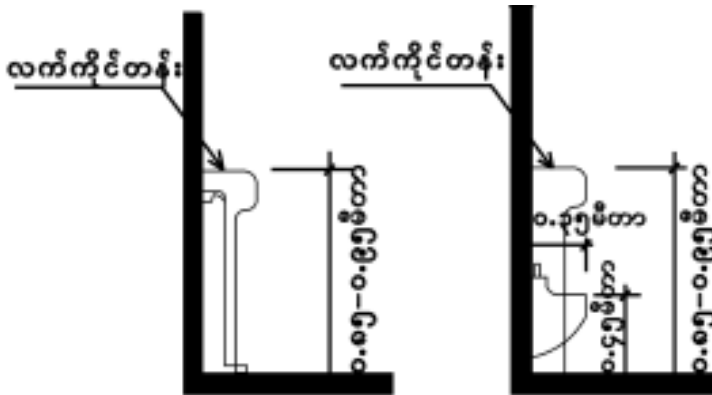




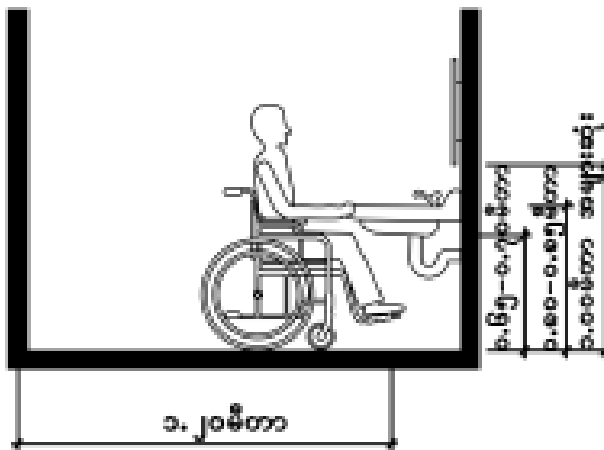
2.7.3.11 Rest rooms and Toilets

- The dimensions of water closet compartment for wheelchair bound shall be accordance with the dimensions as shown in fig. 2.7.3.11.
- Rest rooms should be equipped with an alarm system.
- Toilet floor shall have a non-slip surface without any level.





- **Mirrors** should be suitable for use by both standing and seated persons.
- **Low mirrors or downward tilted mirrors** can be used.
- **The bottom edge of mirrors** should be located at a **maximum height of 1.00 m** from the finished floor level.
- Toilet seats, bidets, shower seats and bath-tub seats are required to be mounted at the same height of the wheelchair seat, i.e. **between 0.45m and 0.50 m** above floor level.



THANK YOU

