

Chapter-4

GENERAL BUILDING REQUIREMENTS

4.1 GENERAL

This part sets out the standard space requirements of various parts of a building and those of light and ventilation. Some of these items depend on the number of persons who would normally occupy the building, for which the occupant load should be worked out from table hereunder:

Table 4.1 Occupant Load

Sl. No.	Type of Occupancy	Occupant Load per 100 sq m. of Plinth or Covered Area
1	Residential	8.0
2	Educational	25.0
3	Institutional	6.60
4	Assembly	
	(a) with fixed or loose seats and dance floor	166.6
	(b) without seating facilities including dining rooms	66.6
5	Mercantile	
	(a) street floor and sales basement	33.3
	(b) upper sale floor	16.6
6	Business and industrial	10.0
7	Storage	3.3
8	Hazardous	10.0

* *The occupant load in dormitory portions of homes for the aged, orphanages or mental hospitals etc. where sleeping accommodation is provided shall be calculated at not less than 13.3 persons per 100 sq.m.*

** *The plinth or covered area shall include, in addition to the main assembly room or space, any occupied connecting room or space in the same storey or in the storeys above or below where entrance is common to such rooms and space and the area available for use by the occupants of the assembly place. No deduction shall be made in the plinth/covered area for corridors, closets and other sub-divisions; that area shall include all space serving the particular assembly occupancy.*

4.2 SPACE REQUIREMENT FOR DIFFERENT PARTS OF BUILDING

4.2.1 Main Building

The plinth or any part of a building or outhouse shall be so located with respect to average road level from site so that adequate drainage of the site is assured but at a not height less than 45 cm.

4.2.2 Interior Courtyards, Covered Parking Spaces and Garages

These shall be raised at least 15 cm. above the surrounding ground level and shall satisfactorily drained.

4.2.3 Habitable Rooms Size and Width

The minimum size and width shall be as given in Table 4.2

Table 4.2 Minimum Size and Width of Different Components of Residential Premises

Sl. No.	Component of Building	Min. requirement for plots upto 50 sq m.	Min. requirement for plots above 50 sq m.
1	Habitable Room	Area 7.50 sq m. Width 2.10 m. Height 2.75 m.	Area 9.50 sq m. Width 2.40 m. Height 2.75 m.
2	Kitchen	Area 3.30 sq m. Width 1.50 m. Height 2.75 m.	Area 4.50 sq m. Width 1.50 m. Height 2.75 m.
3	Pantry	Area Not applicable Width Not applicable Height Not applicable	Area 3.00 sq m. Width 1.40 m. Height 2.75 m.
4	Bathroom	Area 1.20 sq m. Width 1.00 m. Height 2.20 m.	Area 1.80 sq m. Width 1.20 m. Height 2.20 m.
5	W.C.	Area 1.00 sq m. Width 0.90 m. Height 2.20 m.	Area 1.10 sq m. Height 0.90 m. Height 2.20 m.
6	Combined Bath & W.C. (Toilet)	Area 1.80 sq m. Width 1.00 m. Height 2.20 m.	Area 2.80 sq m. Width 1.20 m. Height 2.20 m.
7	Store	Area No restriction Width No restriction Height 2.20 m.	Area No restriction Width No restriction Height 2.2 m.
8	Projections	Permitted within the setbacks upto 0.75 m. width	Permitted within the setbacks upto 0.75 m. width
9	Canopy	See clause 4.9.6	See clause 4.9.6

Sl. No.	Component of Building	Min. requirement for plots upto 50 sq m.	Min. requirement for plots above 50 sq m.
10	Garage	--	Area 14.85 sq m. Width 2.75 m. Length 5.40 m. Height 2.40 m.
11	Passage	--	Width 1.00 m.
12	Doorways Habitable rooms	Width 0.80 m. Height 2.00 m.	Width 0.90 m Height 2.20 m.
	For kitchen bath, W.C. etc.	Width 0.75 m. Height 2.00 m.	Width 0.75 m. Height 2.00 m
14	Staircase	Width 0.75 m. No restriction for internal ladder	Width 0.90 m.

Notes

1. Provided that the minimum clear head way under any beam shall be not less than 2.4 m.
2. Maximum height permissible for all the components of the building mentioned above is 4 m.

4.3 GROUP HOUSING

- a) Building requirement in respect of dwelling units upto 45 sq.mt. in size will correspond to Table 4.2 and as applicable to plots upto 50 sq m.
- b) Building requirement in respect of dwelling units above 45 sq m. may be referred from the Table 4.2 applicable to above 50 sq m. plot size.
- c) Projection into Open Spaces without counting towards FAR.
 - i) All open spaces provided either in interior or exterior shall be kept free from any erections thereon and shall open to the sky. Nothing except cornice, chhajja or weather shade (not more than 0.75 m. wide) shall overhang or project over the said open space so as to reduce the width to less than minimum required.

Note: Such projections shall not be allowed at height less than 2.2 m. from the corresponding finished floor level:

- ii) One canopy per block on the ground floor not exceeding 4.5 m. in length and 2.4 m. in width
- iii) Balcony at roof slab level of 1.2 m. width and area not exceeding 3.5 sq m. per bedroom but not exceeding 3 in number per flat.

- iv) Balcony having entrance from the toilet/bathroom and width as 1.2 m. for drying clothes.

4.4 NON-RESIDENTIAL BUILDINGS

The minimum area for office room/shop or any other space to be used as workspace shall not be less than 6.0 sq m. with a minimum width of 2.1 m.

4.5 OTHER GENERAL REQUIREMENTS:

4.5.1 Kitchen

Every room to be used as a kitchen shall have

- a) Unless separately provided in a pantry, means for washing of kitchen utensils, which shall lead directly or through a sink to a grated and trapped connection to the waste pipe.
- b) An impermeable floor;
- c) At least a window not less than 1 sq m. in area open directly to an interior or exterior open space, but not into a shaft and;
- d) In residential building 15 m. or more in height, refuse chutes.

4.5.2 Bathroom and W. C

Every bathroom or water closet shall

- a) Be so situated that atleast one of its walls shall open to external air and shall have a minimum opening in the form of window or ventilation to the extent of 0.37 sq m.
- b) Not be directly over any room other than another latrine, washing place, bath or terrace unless it has a watertight floor.
- c) Have the platform or seat made of watertight non-absorbent material.
- d) Be enclosed by walls or partitions and the surface of every such wall partition shall be finished with a smooth impervious material to a height of not less than 1.0 m. above the floor of such a room.
- e) Be provided with an impervious floor covering, sloping towards the drain with a suitable grade and not towards verandah or any other room.

- f) No room containing water closets shall be used for any purpose except as a lavatory.
- g) Every water closet and/or a set of urinals shall have flushing cistern of adequate capacity attached to it
- h) A toilet on terrace having a maximum of 2.2 mt. height shall be permitted subject to condition that the area of toilet be counted in FAR.
- i) All the sewage outlets shall be connected to the Municipal Sewerage system. Where no such system exists, a septic tank shall be provided within the plot conforming to the requirements.

4.5.3 Loft

Lofts shall be permitted in residential building and shops only. Area of such loft shall be restricted to 25% of the covered area or respective floor. Minimum height between loft and ceiling shall be 1.75 m. and the clear height below the loft shall be as stipulated in the Building Bye-Laws for the space below it.

4.5.4 Mezzanine Floor

Mezzanine floor may be permitted with the minimum height of 2.75 m. between any two floors above ground in all types of building provided the same is counted as part of total permissible floor area ratio and height of the building.

4.5.5 Basement

The construction of the basement shall be allowed by Authority in accordance with the land use and other provisions specified under the Master Plan/Zonal Plan. The basement shall have the following requirement:

- i) Every basement shall be in every part at least 2.5 m. in height from the floor to underside of the roof slab or ceiling and with maximum height not more than 4.5 m.
- ii) Adequate ventilation shall be provided for the basement. The standard of ventilation shall be the same as required by the particular occupancy according to Building Bye-Laws. Any deficiency may be met by providing adequate mechanical ventilation in the form blowers, exhaust fans (one exhaust fan for 50 sq m. basement area), air-conditioning system, etc.

- iii) The minimum height of the ceiling of any basement shall be 0.9 m. and maximum of 1.2 mt. above the average road level on the front side of the building.
- iv) Adequate arrangement shall be made such that surface drainage does not enter the basement.
- v) The walls and floors of the basement shall be watertight and be so designed that the effect of the surrounding soil and moisture, if any, are taken into account in design and adequate damp proofing treatment is given.
- vi) The access to the basement shall be either from the main or alternate staircase providing access to the building. No direct entry from the road shall be permitted to the basement.
- vii) Basement in an individual plot touching the adjacent property shall be allowed subject to following:
 - a) In all cases the owners shall have to indemnify the local body against any damage caused by her/him/them to the adjacent property (Appendix-B-1).
 - b) In case the portion of the basement projecting out of the building line that shall flush with the ground.
- viii) In case partition in the basements are allowed by the Authority, no compartment shall be less than 50.0 sq m. in area and each compartment shall have ventilation standards as laid down in sub-clause (ii), above separately and independently. The basement partition shall however, confirm to the norms laid down by Fire Services.

4.5.6 Garage

- i) The plinth of garage located at ground level shall not be less than 15 cm. above the surrounding ground level.
- ii) The garages shall be setback behind the building line of the street/road on to which the plot abuts and shall not be located affecting the access ways to the building. If the garage is not setback as aforesaid, the Authority may require the owner or occupier of the garage to discontinue its use as such or to carry out such structural alterations to the premises or to take such other measures

as the Authority may consider necessary in order to prevent danger or obstruction to traffic along the street.

4.5.7 Corner Site

When the site front on two streets, the frontage would be on the street having the larger width. In cases, where the two streets are of same width, then the larger depth of the site will decide the frontage and open spaces. In such case the location of a garage (on a corner plot) if provided within the open spaces shall be located diagonally opposite the point of intersection.

4.6 REQUIREMENT IN RESPECT OF BUILDING SITES

4.6.1 Damp Sites

Wherever the dampness of a site or the nature of the soil renders such precautions necessary, the ground surface of the site between the walls of any building erected thereon shall be rendered damp-proof to the satisfaction of the Authority.

4.6.2 Distance from Electric Line

The distance in accordance with the current electricity rules and its amendments from time to time is to be provided between the building and overhead electric supply line.

	Vertically	Horizontally
a) Low and medium voltage lines and service lines	2.50 m.	1.20 m.
b) High voltage lines upto and including 11,000 volts	3.70 m.	1.20 m.
c) High voltage lines above 11,000 volts and upto and including 33,000 volts	3.70 m.	2.00 m.
d) Extra high voltage lines additional 33,000 volts	Plus 0.3 mt. for every additional 33,000 V or part thereof.	Plus 0.3 m. for every additional 33,000 V or part thereof.

4.6.3 Minimum Size of Site

The minimum size of sites for the construction of different types of building or different use groups, shall be in accordance with provisions of the Master Plan and any land development Rules and Regulations of the Authority.

4.7 MEANS OF ACCESS

4.7.1 No Building shall be erected as to deprive any other building of its means of access.

4.7.2 Every person who erects a building shall not at any time erect or cause or permit to erect or re- erect any building, which in any way encroaches upon or diminishes the area set apart as means of access.

4.7.3 For buildings identified in Building Bye-Laws 7.1 the following provisions of means of access shall be applicable.

- a) The width of the main street on which the building abuts shall not be less than 12.0 m.
- b) If there are any bends or curves in the approach road, sufficient width shall be permitted at the curve to enable the fire tenders to turn, the turning circle shall be at least of 9.0 m. radius.
- c) The approach to the building and open spaces on its all sides (see Building Bye-Laws 4.8 and 4.9) upto 6.0 m. width and the layout for the same shall be done in consultation with the Chief Fire Officer and the same shall be of hard surface capable of taking the weight of fire tender, weighing upto 22 tones for low rise building and 45 tones for building 15 m., and above in height. The said open space shall be kept free of obstructions and shall be motorable.
- d) Main entrance to the premises shall be of adequate width to allow easy access to the fire tender and in no case it shall measure less than 5 m. The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior access way within the plot free for movement of the fire service vehicles. If-archway is provided over the main entrance, the height of the archway shall not be of height less than 5.0 m.
- e) For multi-storeyed group housing schemes on one plot, the approach road shall be 20.0 m. or as per Master Plan/Development Plan provisions and between individual buildings, there shall be 6.0 m. space around.
- f) In case of basement extending beyond the building line, it shall be capable of taking load of 45 tones for a building of height 15.0 m. and above and 22 tones for building height less than 15.0 m.

- g) The external window shall not be blocked by louvres etc. In such case provisions shall be made so that one can enter the building to be rescued through the window by using hydraulic platform etc.

4.8 EXIT REQUIREMENTS

General

The following general requirement shall apply to exits:

- a) Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of occupants in case of fire or other emergency.
- b) In every building exit shall comply with the minimum requirement of this part, except those not accessible for general public use.
- c) All exits shall be free of obstructions.
- d) No buildings shall be altered so as to reduce the number, width or portion of exits to less than required.
- e) Exits shall be clearly visible and the routes to reach exits shall be clearly marked and signs posted to guide the occupants of floor concerned.
- f) All exit ways shall be properly illuminated.
- g) Fire fighting equipment where provided along exits shall be suitably located and clearly marked but must not obstruct the exit way and there should be clear indication about its location from either side of the exit way.
- h) Alarm devices shall be installed to ensure prompt evacuation of the occupants concerned through the exits, wherever required.
- i) All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.
- j) Exits shall be so arranged that they may be reached without passing through another occupied unit, except in the case of residential buildings.

4.8.1 Types of Exits

- a) Exits shall be either horizontal or vertical type. An exit may be doorway, corridor and passage to an internal staircase or external staircase, ramp or to a

verandah and/or terraces that have access to the street or to roof of a building. An exit may also include horizontal exit leading to an adjoining building at the same level.

- b) Lifts escalators and revolving doors shall not be considered as exits.

4.8.2 Number and size of Exits

The requisite number and size of various exits shall be provided, based on the occupants in each room and floor based on the occupant load, capacity of exits, travel distance and height of buildings as per provisions of Building Bye-Laws 4.8. I.

4.8.3 Arrangement of Exits

- a) Exits shall be so located so that the travel distance on the floor shall not exceed 22.50 m. for residential, educational, institutional and hazardous occupancies and 30.0 m. for assembly, business, mercantile, industrial and storage occupancies. Whenever more than one exit is required for a floor of a building they shall be placed as remote from each other as possible. All the exits shall be accessible from the entire floor area at all floor levels.
- b) The travel distance to an exit from the remote point shall not exceed half the distance as stated above except in the case of institutional occupancy in which case it shall not exceed 6.0 m.

4.8.4 Capacity of Exits

The capacity of exits (staircase, ramps and doorways) indicating the number of which persons could be safety evacuated through a unit exit width of 50 cm shall be as given below:

Table 4.3 Occupants per unit Exit width

Sl. No.	Group of Occupancy	Number of Occupants		
		Stairways	Ramps	Doors
1	Residential	25	50	75
2	Educational	25	50	75
3	Institutional	25	50	75
4	Assembly	40	50	60
5	Business	50	60	75
6	Mercantile	50	60	75
7	Industrial	50	60	75
8	Storage	50	60	75
9	Hazardous	25	30	40

4.8.5 Staircase Requirement

For buildings identified in Bye-Laws No. 1.13 VI (a) to (m), there shall be minimum of two staircases and one of them shall be enclosed stairway and the other shall be on the external walls of building and shall open directly to the exterior, interior open space or to any open place of safety. Single staircase may be accepted for educational, business or group housing society where floor area does not exceed 300 sq m. and height of the building does not exceed 24 m. and other requirements of occupant load travel distance and width of staircase shall meet the requirement. The single staircase in such case shall be on the outer wall of the building.

4.8.6 Minimum Width Provisions for Stairways

The following minimum width provisions shall be made for each stairway

- | | | |
|----|---|---------|
| a) | i) Residential low rise building | 0.9 m. |
| | ii) Other residential building e.g. flats,
hostels, group housing, guest houses, etc | 1.25 m. |
| b) | Assembly buildings like Auditorium, theatres and cinemas | 2.0 m. |
| c) | All other buildings including hotels | 1.5 m. |
| d) | Institutional building like hospitals | 2.0 m. |
| e) | Educational building like School, Colleges. | 1.5 m. |

4.8.7 Minimum Width Provisions for Passageway/Corridors

The following minimum width provisions shall be made for each passage way/corridor.

- | | | |
|----|---|---------|
| a) | Residential buildings, dwelling unit type | 1.0 m. |
| b) | Residential buildings, e.g., hostels, etc. | 1.25 m. |
| c) | Assembly buildings like auditorium theatres and cinemas | 2.0 m. |
| d) | All other buildings including hotels | 1.5 m. |
| e) | Hospital, Nursing Homes, etc. | 2.4 m. |

4.8.8 Doorways

- a) Every doorway shall open into an enclosed stairway, a horizontal exit, on a corridor or passageway providing continuous and protected means of egress.
- b) No exit doorways shall be less than 100 cm in width and 150 cm in case of hospital and ward block. Doorways shall not be less than 200 cm in height.

- c) Exit doorways shall open outwards, that is away front the room but shall not obstruct the travel along any exit. No door when opened shall reduce the required width of stairway or landing to less than 100 cm. Overhead or sliding door shall not be installed.
- d) Exit door shall not open immediately upon a flight or stairs. A landing equal to at least, the width of the door shall be provided in the stairway at each doorway. Level of landings shall be the same as that of the floor, which it serves.
- e) Exit doorways shall be openable from the side, which they serve without the use of a key.
- f) Revolving doors shall not be allowed.

4.8.9 Stairways

- a) Interior stairs shall be constructed of non-combustible material throughout.
- b) Interior stairs shall be constructed as a self-contained unit with atleast one side adjacent to an external wall and shall be completely enclosed.
- c) A staircase shall not be arranged round a lift shaft for buildings 15.0 m. and above height. The staircase location shall be to the satisfaction of Chief Fire Officer.
- d) Hollow combustible construction shall not be permitted.
- e) The minimum width of internal staircase shall be as given in bye-law 4.8.6.
- f) The minimum width of treads without nosing shall be 25 cm. for an internal staircase for residential high-rise buildings. In the case of other buildings, the minimum tread shall be 30 cm. The treads shall be constructed and maintained in a manner to prevent slipping. Winders shall be allowed in residential buildings provided they are not at the head of a downward flight.
- g) The maximum height of riser shall be 19 cm. in the case of residential high rise buildings and 15 cm in the case of other buildings They shall be limited to 12 per flight.
- h) Handrails shall be provided with a minimum height of 100 cm. from the center of the tread.

- i) The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.2 m.
- j) For building more than 24 m. in height, access to main staircase shall be through a lobby created by double door of one hour fire rating. One of the doors will be fixed in the wall of the staircase and other after the lobby.
- k) No living space, store or other fire risk shall open directly into the staircase or staircases.
- l) External exit door of staircase enclosure at ground level shall open directly to the open spaces or can be reached without passing through any door other than a door provided to form a draught lobby.
- m) The main staircase and fire escape staircase shall be continuous from ground floor to the terrace level.
- n) No electrical shafts/AC ducts or gas pipe etc. shall pass through the staircase. Lift shall not open in staircase landing.
- o) No combustible material shall be used for decoration/wall paneling in the staircase.
- p) Beams/columns and other building features shall not reduce the head room/width of the staircase.
- q) The exit sign with arrow indicating the way to the escape route shall be provided at a suitable height from the floor level on the wall and shall be illuminated by electric light connected to corridor circuits. All exit way marking sign should be flush with the wall and so designed that no mechanical damage shall occur to them due to moving of furniture or other heavy equipments. Further all landings of floor shall have floor-indicating boards indicating the number of floor as per bye-law.
The floor indication board shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of size not less than 0.2 m. x 0.5 m.
- r) Individual floors shall be prominently indicated on the wall facing the staircase.

- s) In case of single staircase it shall terminate at the ground floor level and the access to the basement shall be by a separate staircase. However, the second staircase may lead to basement levels provided the same is separated at ground level either by ventilated lobby with discharge points at two different ends through enclosures.

4.9 OPEN SPACE AREA AND HEIGHT LIMITATION

4.9.1 Every room that is intended for human habitation shall abut on an interior or exterior open space or on to a verandah open to such interior or exterior open space.

4.9.2 The open spaces to be left around the building including set backs, covered area, total built up area, limitations through FAR shall be as per Master Plan/Zonal Plan requirements. The relevant provisions related to open spaces, areas and height limitations of the Master Plan are given in Chapter-3.

4.9.3 Interior Open Space for Light and Ventilation

The whole or part of one side of one or more rooms intended for human habitation and not abutting on either the front, rear or side open spaces shall abut on an interior open space whose minimum width in all directions shall be 3.0 m. in case of buildings not more than 12.50 m. in height and subject to the provision of increasing the same with increasing height @ of 0.3 m. per every meter height or part thereof beyond 12.50 m. However, in case of buildings already constructed with 3.0 m. the open space for new construction on upper floor, the open space on this basis should be ensured and would remain as mandatory open space.

Note: Where only a kitchen is abutting an interior open space, the minimum width as specified can be reduced by 0.55 m. correspondingly.

4.9.4 Provision of exterior Open Spaces around the Building

- a) The set backs of the respective building shall be as per Master Plan, detailed Layout Plan, general Development Plan.
- b) For buildings identified in Building Bye-Laws no. 2.10.5 and 7.1 the provision of exterior open spaces around the buildings shall be as given in Table 4.4.

Table 4.4 Provision of Exterior Open Spaces Around the Buildings

Sl. No.	Height of the Building Upto (m.)	Exterior open spaces to be left out on all sides in m. (front rear and sides in each plot)
1	10	As per prescribed set backs
2	15	5
3	18	6
4	21	7
5	24	8
6	27	9
7	30	10
8	35	11
9	40	12
10	45	13
11	50	14
12	55 and above	16

Note: On sides where no habitable rooms face, a minimum space of 9.0 m. shall be left for heights above 27.0 m.

- c) In case of multi storeyed buildings the exterior open space around a building shall be of hard surface capable to taking load of fire engine weighting upto 45 tonnes.

4.9.5 Joint Open Air Space

Every interior or exterior or air space, unless the latter is a street, shall be maintained for the benefit of such building exclusively and shall be entirely within the owner's own premises.

4.9.5.1 If such interior or exterior open air space is intended to be used for the benefit of more than one building belonging to the same owner; then the width of such open air space shall be the one specified for the tallest building as specified in building bye-law 4.9.3 and 4.9.4 abutting on such open air space.

4.9.6 Exemption to Open Spaces/Covered area

The following exemption to open space shall be permitted.

4.9.6.1 Projections into Open Spaces

- a) Every interior or exterior open space shall be kept, free from any erection thereon and shall be open to the sky. Nothing except cornice, chajja or weather shade (not more than 0.75 m. wide) shall overhang or project over the said open spaces so as to reduce the width to less than the minimum required.

Note: Such projections shall not be allowed at a height less than 2.20 m. from the corresponding finished floor level

- b) A canopy or canopies each not exceeding 4.50 m. in length and 2.40 m. in width in the form of cantilever or cantilevers, over the main entrance/entrances, providing a minimum clear height of 2.2 m. below the canopy.

In single storeyed residential building, only one such canopy shall be permitted for each individual detached block. In more than one storeyed residential building, two canopies shall be permitted over ground floor/higher floor entrances.

In buildings of other occupancies, the permissibility of canopy, canopies shall be as decided by the Authority on its merits.

- c) In case of residential building only, a balcony or balconies at roof level of a width of 1.20 m. overhanging in set backs within one's own land and courtyards provided the minimum area required shall not be reduced by more than 30% of such open spaces.
- d) The projections (cantilever) of cupboards and shelves shall be permitted and are exempted from covered area calculations in case of residential buildings only. Such projection shall be upto 0.75 m. depth provided.
- i) That no cupboard shall project in the side set back on the ground floor.
 - ii) That outer length of cupboard overhanging in the set backs shall not exceed 2.0 m. per habitable room. In addition to this, cupboard under the above and windows can be provided.

Note: Cupboard means a space used for storage of household goods/clothes, having shelves/partitions not more than 1.5 m. apart.

- iii) Only one pergola on each floor shall be permitted in a residential building if constructed in the exterior open spaces or terrace.

Such pergola shall not exceed 3.50 sq m. in area on which 40% shall be void and shall have a clear height 2.20 m.

4.9.6.2 In addition to above, the following shall not be included in covered area for FAR calculations.

- a) Machine room for lift on top floor as required for the lift machine installation (see Appendix L1 and L2).

Note: The shaft provided for lift shall be taken for covered area calculations only on one floor.

- b) Rockery, well and well structures, plant nursery, water pool, swimming pool (if uncovered), platform round a tree, tank, fountain, bench, chabutara with open top and / or unenclosed sides by walls, open ramps, compound wall, gate, slide swing door, uncovered staircase (uncovered and unclosed on three sides except for a 0.90 m. high railing/wall, overhead water tank on top of building/open shafts.
- c) A mumty over staircase on top floor.
- d) Culvert on Municipal drains.

4.9.7 Height Limit

The Height and number of storeys shall be related to provisions of FAR as given in Chapter-3 and the provisions of open spaces given in Building Bye-Laws and the following:

- a) The maximum height of building shall not exceed 1.5 times the width of road abutting plus the front open spaces.
- b) If a building abuts on two or more streets of different width, the building shall be deemed to face upon the street that has the greater width and the height of the building shall be regulated by the width of that street. Height shall however, not exceed the maximum height as provided in the Master Plan.
- c) For buildings in the vicinity of the aerodromes the maximum height of such buildings shall be subject to clearance from the Civil Aviation Authorities from time to time and to this effect a no objection certificate issued by that Authority shall be submitted by the applicant along with plans to the sanctioning Authority.

Note: The location of slaughter house/butcher house and other areas for activities like depositing of garbage dumps which would attract high flying birds like eagles/hawks etc. shall not be permitted within a radius of 10 km. from aerodrome reference point.

4.9.8 Height Exemptions

The following apartment structures shall not be included in the height of building covered under Building Bye-Laws 4.9.7.

Roof tanks and their supports not exceeding 1.0 m. in height, ventilating, air conditioning and lift rooms and similar service equipments, stair covered with Mumty not exceeding 3.00 m. in height. Chimneys and parapet wall and architectural features not exceeding 1.50 m. in

height unless the aggregate area of such structures exceeds 1/3 of the roof area of the building on which they are erected.

4.10 LIGHTING AND VENTILATION OF ROOMS

4.10.1 All habitable rooms shall have for the admission of light and air, one or more apertures, such as window, glazed door and fan lights, opening directly to the external air or into a open verandah not more than 2.40 mt. in width. In case light and ventilation to habitable space area are through an internal courtyard, the minimum dimensions of such courtyard shall not be less than 3.0 m. x 3.0 m. for buildings upto 12.50 m. in height. For buildings with higher heights, the minimum dimensions of the internal courtyard shall be as given in Building Bye-Laws 4.9.

4.10.2 Where the lighting and ventilation requirements are not met through day lighting and natural ventilation, the same shall be ensured through artificial lighting and mechanical ventilation as given in part-VII building services Section-1 lighting and Ventilation of National Building Code of India published by the Bureau of Indian Standards. The latest version of the National Building Code of India shall be taken into account at the time of enforcement of the Building Bye-Laws.

Notwithstanding the above, the minimum aggregate area of openings of habitable rooms and kitchens excluding doors shall be not less than 1/10 of the floor area.

No portion of a room shall be assumed to be lighted if it is more than 7.50 m. from the opening assumed for lighting that portion.

4.10.3 Ventilation Shaft

For ventilating the spaces for water closets and bathrooms, if not opening on the front side, rear and interior open spaces, shall open on the ventilation shaft, the size, of which shall not be less than the values given below:

Table 4.5 Size of Ventilation Shaft

Height of Building in m.	Size of ventilation shaft in sq m.	Minimum size of shaft in m.
9.0	1.5	1.0
12.5	3.0	1.2
15 and above	4.0	1.5

* For buildings above 15.0 m. height, mechanical ventilation system shall be installed besides the provision of minimum ventilation shaft.

4.11 PARAPET

Parapet walls and handrails provided on the edges of roof terrace, balcony etc. should not be less than 1.0 m. and more than 1.5 m. in height.

Note: The above shall not apply where roof terrace is not accessible by a staircase.