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The Gujarat Government Gazette

PUBLISHED BY AUTHORITY

Vol. XLVIII | THURSDAY, APRIL 5, 2007/CHAITRA 15, 1929 | No. 14

Separate paging is given to this Part in order that it may be filed as a Separate Compilation.

PART IV-C

Statutory Rules and Orders (Other than those published in Part I, I-A and I-I.) made by Statutory Authorities other than the Government of Gujarat including those made by the Government of India, the High Court, the Director of Municipalities, the Commissioner of Police, the Director of Prohibition and Excise, the District Magistrates and the Election Commission, Election Tribunals, Returning Officers and other authorities, under the Election Commission.

Gujarat Special Economic Zone Development Authority Gandhinagar

NOTIFICATION

Dated the 2-4-2007

Notification NO: GUJ/SEZDA/GDCR/REG/2007/ In exercise of the powers conferred by Section 26 of the Gujarat Special Economic Zone Act, 2004 the Gujarat Special Economic Zone Development Authority with the previous approval of the State Government, hereby makes the following regulations, namely :-

CHAPTER-I

- 1 Short title** (1) The regulations may be called the "General Development Control Regulations for Special Economic Zone, 2007" (hereinafter referred as "GDCR").
- (2) This GDCR shall apply to all the developments in the Special Economic Zones in Gujarat State as modified or amended time to time.
- (3) These GDCR shall come into force with immediate effect.
- (4) Any action taken under the existing Regulations, if any, in force prior to such modification shall be deemed to be valid and continue to be so valid unless and otherwise specified.

2 DEFINITIONS: In these regulations, unless the context otherwise requires,

(1) **“ACT”** means the Gujarat Special Economic Zone Act, 2004;

(2) **“ADDITIONS AND /OR ALTERATIONS”** means any change in existing authorized building or change from one use to another use, or a structural change such as additions to the area or height, or the removal of part of a building, or a change to the structure such as the construction or cutting into or removal of any wall or part of a wall, partition, column, beam, joist, floor including a mezzanine floor or other support or a change to or closing of any required means of ingress or egress or a change to fixtures or equipments, as provided in these regulations. The addition to any existing structure shall only be permitted if it complies with the provisions of Safety Regulations;

(3) **“ADVERTISING SIGN/HOARDING”** means any surface or a structure with character, letter or illustration, applied there to and displayed in any manner whatsoever out of doors for the purpose of advertising giving information regarding or to attract the people to any place, person, public performance, article or merchandise, and which surface or structure is attached to, forms part of, or is connected with any building or is fixed to a tree or to the ground or to any pole, screen, hoarding or displayed any space or in or over any water body included in the limits of the SEZ area;

(4) **“AMENITIES”** means roads, streets, open spaces, parks, recreational grounds, playgrounds, gardens, water supply, electric supply, street lighting, drainage, sewerage, public works and other utilities, communication network, surface and convenience;

(5) **“BASEMENT OR CELLAR”** means the lower storey of a building having at least half of the clear floor height of the basement or cellar below average ground level;

(6) **“ BUILDING”** means all types of permanent building defined in (a) to (r) below, but structure of temporary nature like tents, hutment as well as shamianas erected for temporary purposes for ceremonial occasions, shall not be considered to be "buildings";

(a) **"Assembly building"** means a building or part thereof where groups of people congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes. Assembly building include buildings of drama and cinema theatres, city halls, town halls, auditoria, exhibition halls, museums, "marriage hall", "skating rings", gymnasia, stadia, restaurants, eating or boarding houses, place of worship, dance halls, clubs, gymkhanas, road, air, sea or other public transportation stations and recreation piers.

(b) **"Business building"** means any building or part thereof used for transaction of record therefor, offices, banks, all professional establishments, court houses classified as business buildings if their principal function is transaction of business and/or keeping of books and records.

(c) **"Detached building"** means a building with walls and roofs independent of any other building and with open spaces on all sides.

(d) **"Semi-Detached Building"** means a building having one or more side attached with wall and roof with other building.

(e) **"Educational building"** means a building exclusively used for a school or college, recognized by the appropriate Board or University, or any other Competent Authority involving assembly for instruction, education or recreation incidental to educational use, and including a building for such other uses incidental thereto such as a library or a research institution. It shall also include quarters for essential staff required to reside in the premises, and a building used as a hostel captive to an educational institution whether situated in its campus or not.

(f) **"Hazardous building"** means a building or part thereof used for, -

- (i) storage, handling, manufacture or processing of radio-active substances or of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and/or producing poisonous fumes or explosive enabatuibs.
- (ii) storage, handling, manufacture or processing of, which involves highly corrosive, toxic obnoxious alkalis, acids, or a other liquids, gases or chemicals producing flame, fumes, and explosive mixtures or which result in division of matter into fine particles and capable of spontaneous ignition.
- (g) "Industrial building" means a building or part thereof wherein products or, material are fabricated, assembled or processed, such as assembly plants, laboratories, power plants, refineries, gas plants, mills dairies and factories.
- (h) "Institutional building" means a building constructed by Government, Semi-Government organisations, public sector undertakings, registered Charitable Trusts for their public activities, such as education, medical, recreational and cultural, hostel for working women or men or for an auditorium or complex for cultural and allied activities or for an hospice, care of orphans, abandoned women, children and infants, convalescents, destitute or aged persons and for penal or correctional detention with restricted liberty of the inmates ordinarily providing sleeping accommodation, and includes dharamshalas, hospitals, sanatoria, custodian and penal institutions such as jails, prisons, mental hospitals, houses of correction, detention and reformatories.
- (i) "Mercantile building" means a building or part thereof used as shops, stores or markets, for display and sale of wholesale or retail goods or merchandise, including office, storage and service facilities incidental thereto located in the same building.
- (j) "Low rise building" shall mean a building having height up to 13.0 mts. and having ground floor plus three floors. However, hollow plinth up to 2.8 mts and parapet on terrace up to 1.5mts shall not be counted.
- (k) "High-rise building" shall mean building other than mentioned in (j) above provided the maximum permissible height shall not exceed 30 mts.
- (l) "Office building" means a building or premises or part thereof whose sole or principal use is for an office or for office purposes or clerical work, "Office purposes" includes the purpose of administration, clerical work, handling money, telephone, telegraph and computer operation; and clerical work" includes writing, book-keeping, sorting papers typing, filing, duplicating, punching cards or tapes, machines calculations, drawing of matter for publication and editorial preparation of matter of publication.
- (m) "Public Building" means a building constructed by Government, Semi-Government organizations, public sector under-takings, registered Charitable Trust or such other organizations for their non-profitable public activities
- (n) "Residential Building" means a building in which sleeping accommodation is provided for normal residential purposes, with or without cooking or dining facilities, and includes one or more family dwellings, lodging or boarding houses, hostels, dormitories, apartment houses, flats and private garages of such buildings.
- (o) "Special Building" means
- (i) a building solely used for the purpose of a drama or cinema theatre, motion picture a drive-in-theatre, an assembly hall or auditorium, town hall, lecture hall, an exhibition hall, theatre museum, stadium, community hall, marriage hall.
 - (ii) a hazardous building;
 - (iii) a building of a wholesale establishment;
 - (iv) centrally air-conditioned building which exceeds 15 mts. in height, in case where in building is constructed on stilt

(p) "Storage Building" means a building or part thereof used primarily for storage or shelter of goods, merchandise and includes a building used as a warehouse, cold storage freight depot, transit shed, store house, public garage, hanger, truck terminal grain elevator, barn and stable.

(q) "Unsafe Building" means a building which,

(i) is structurally unsafe,

(ii) is insanitary,

(iii) is not provided with adequate means of egress,

(iv) constitutes a fire hazard,

(v) is dangerous to human life,

(vi) in relation to its existing use constitutes a hazard to safety or health or public welfare by reasons of inadequate maintenance, dilapidation or abandonment.

(r) "Wholesale establishment" means an establishment wholly or partly engaged in wholesale trade and, manufactures wholesale outlets, including related storage facilities, warehouses and establishments engaged in truck transport, including truck transport booking warehouses.

(7) BUILDING UNIT means a land/plot or part of a land/plot or combination of more than one land/plot. Provided however where an alignment has been fixed on any road, the building unit shall mean and refer to the land excluding the portion falling in alignment;

(8) BUILT-UP AREA means the area covered by a building on all floors including cantilevered portion, if any, but except the areas excluded specifically under these Regulations;

(9) "COMPETENT AUTHORITY" means any person or persons or Authority or Authorities authorized by the Special Economic Zone Development Authority constituted under section 4 of the Act, as the case may be to perform such functions as may be specified. Different persons or Authorities may be authorized to perform different functions;

(10) "CHHAJJA" means a structural overhang provided over opening on external walls for protection from the weather;

(11) "COMMON PLOT" means a common open space exclusive of margins and approaches, at a height not more than ground level of the building unit. The owner shall have to give an undertaking that the common plot shall be for the common use of all the resident or occupants of the building unit, free of cost;

On sanction of the development permission, the common plot shall deem to have vested in the society/association of the residents/occupants. In case such society or Association is to be formed, the possession/custody of common plot shall remain with Competent Authority until such association/society is formed. The common plot shall not be sold to any other person and it shall not be put to any other use except for the common use of the residents/occupants;

(12) "DWELLING UNIT" means a shelter consisting of residential accommodation for one family. Provided that the minimum accommodation in a dwelling unit shall be one room of minimum carpet area of 9 sq.mts. with a minimum side of 2.4 Mts. and a w.c.;

(13) "FLOOR SPACE INDEX (F.S.I.)" means quotient of the ratio of the combined gross floor area of the all floors including areas of all walls, except areas specifically exempted under these Regulations, to the total area of the plot/building unit;

$$\text{Floor Space Index} = \frac{\text{Total floor area including walls of all floors}}{\text{Plot Area / Building Unit}}$$

PROVIDED THAT THE FOLLOWING shall not be counted towards computation of F.S.I.

- (i) Parking spaces without any enclosures and partitions of any kind, with clear height of 2.4 mts. and in case of slabs with beams, height should not exceeds 2.8 mts.
- (ii) Spaces of hollow plinth with maximum clear height of 2.8 Mts. including beams in residential buildings only (not even in mixed development) at ground level without any enclosures/walls and partitions in any form.
- (iii) Interior open spaces and ducts required under these Regulations.
- (iv) Basement exclusively used for required parking with maximum clear height of 2.6 Mts. excluding beams.
- (v) Security Cabin up to 4 sq.mts.
- (vi) Weather shed up to 0.60 mt width.
- (vii) Stair case with maximum intermediate landing width equal to the width of stair, maximum landing width at floor level shall be twice the width of stair.
- (viii) lift, lift well with lift cabin, stair cabin, lift landing of lift well and water tank.
- (ix) Electric room.

(14) "FRONT" Front as applied to a plot; means the portion facing the road and in case of plot abutting on more than one road and or more than 18 Mts. in width, the front shall be decided by the Competent Authority considering the existing and future development trend of the surrounding area;

(15) "HEIGHT OF BUILDING" means the vertical distance measured from the average ground level/ high flood level/plot level and up to the top of the finished level of the top most floor slab in case of flat roofs upto the midpoint of the height of the slopping roof excluding the genuine stair cabin, water tank, and lift room. The height of the slopping roof shall be taken as an average height of the relevant floor;

(16) "HEIGHT OF A ROOM" means the vertical distance measured from the finished floor surface to the finished ceiling/slab surface. The height of a room with a pitched roof means the average height between the finished floor surface and the bottom of the eaves and the bottom of the ridge;

(17) "HAZARDOUS MATERIAL" (i) Means radio active substances:

- (ii) Material which is highly combustible or explosive and/or which may produce poisonous fumes explosive emanations, or storage, handing, processing or manufacturing of which may involve highly corrosive, toxic, obnoxious alkalis or acids or other liquids;
- (iii) Other liquids or chemicals producing flame, fumes, explosive, poisonous, irritant or corrosive gases or which may produce explosive mixtures of dust or fine particles capable of spontaneous ignition;

(18) "LIFT" means a mechanically guided car, platform or transport for persons and materials between two or more levels in a vertical or substantially vertical direction;

(19) "LOFT" means an intermediate floor between two floors with a maximum height of 1.2 Mts. and which is constructed and adopted for storage purpose. The loft if provided in a room shall not cover more than 30% of the floor area of the room;

(20) "MARGIN" means space fully open to sky provided at the plot level from the edge of the building wherein built-up area shall not be permitted except specifically permitted projections under this regulation;

(21) "MEZZANINE FLOOR" means an intermediate floor between two floors overhanging or overlooking a floor beneath;

(22) "OPEN SPACE" means an area forming an integral part of the plot, left permanently open to sky;

(23) "PARKING SPACE" means an enclosed or unenclosed covered or open area sufficient in size to park vehicles. Parking spaces shall be served by a driveway connecting them with a street or alley

and permitting ingress or egress of vehicles;

(24) “**PERMISSION**” means a valid permission or authorization in writing by the Competent Authority to carry out development or a work regulated by the Regulations;

(25) “**PLINTH**” means the portion of the external wall between the level of the street and the level of the storey first above the street;

(26) “**PLINTH AREA**” means the built-up covered area measured at the floor level of the basement or of any storey;

(27) “**STOREY**” means the portion of a building included between the surface of any floor and the surface of the floor next above it, or if there be no floor above it, then the space between any floor and the ceiling next above it;

(28) “**TENEMENT**” means an independent dwelling unit with a kitchen, or a cooking space;

(29) “**TENEMENT BUILDING AND OWNERSHIP FLATS**” means residential building constructed in a semi-detached manner in a building unit, each dwelling unit is being designed and constructed for separate occupation with independent provision of bath, w.c.;

(30) “**WATER COURSE**” means a natural channel or an artificial channel formed by draining or diversion of a natural channel meant for carrying storm and wastewater;

(31) “**WAREHOUSE OR GODOWN**” means a building the whole or a substantial part of which is used or intended to be used for the storage of goods whether for storing or for sale or for any similar purpose. It is neither a domestic nor a public building, nor merely a shop if so used not a store attached to and used for the proper functioning of a shop;

(32) “**WIDTH OF A STREET**” means the clear average width of the existing carriage way and footpaths only on which the building or plot line abuts.

3 PROCEDURE FOR SECURING DEVELOPMENT PERMISSION.

(1) APPLICATION FOR DEVELOPMENT PERMISSION

Any person intending to carry out any development as defined in the Act in any building or in or over any land, within the limits of SEZ Area in conformity with the Master Plan proposals shall make an application in writing to the Competent Authority in prescribed Form.

(2) RENEWAL OF DEVELOPMENT PERMISSION:

Development permission granted under these regulations shall be deemed to be lapsed, if such development work has not been commenced till the expiry of one year from the date of development permission. Provided that, the Competent Authority may on application made to it before the expiry of above period (one year) extended such period by a further period of one year at a time by charging Rs.300/- for renewal of development permission. The extended period shall in no case exceed three years in the aggregate.

(3) FORMS OF APPLICATION

The following particulars and documents shall be submitted along with the application.

(I)

A site plan (required copies) of the area proposed to be developed to a scale not less than 1:500 as the case may be showing the following details wherever applicable; In the case where plot is more than 10 Hectors, scale shall not be less than 1:1000.

- i) The boundaries of the plot and plot level in relation to neighbouring road level.
- ii) The positions of the plot in relation to neighbouring streets.
- iii) The name of the streets in which the plot is situated.
- iv) All the existing buildings and other development exists on or under the site.
- v) The position of buildings and of all other buildings and construction which the applicant intends to erect.
- vi) The means of access from the street to the buildings or the site and all other building and constructions which the applicant intends to erect.
- vii) Yards and open spaces to be left around the buildings to secure free circulation of air, admission of light and access.
- viii) The width of street in front and of the street at the side or rear of the building.
- ix) The direction of north point relative to the plan of the buildings.
- x) Any physical feature such as trees, wells, drains, pipeline, High Tension Line, railway line.
- xi) A plan indicating parking spaces, if required under these regulations.
- xii) The positions of the building units immediately adjoining the proposed development.
- xiii) The position of every water closet, privy, urinal, bathrooms, cess pool, well or cistern in connection with the building other than those shown in the detailed plan.
- xiv) The lines of drainage of the building, the size, depth and inclination of every drain and the means to be provided for the ventilation of the drains.
- xv) The position and level of the out fall of the drain.
- xvi) The position of sewer, where the drainage is intended to be connected to sewer.
- xvii) Open spaces required under these Development Control Regulations.
- xviii) Tree plantation required under these regulations.

(II) A detailed plan (required copies) showing the plans, sections and elevations of the proposed development work to a scale of 1:100 showing the following details wherever applicable:

- a) Floor plans of all floors together with the covered, area; clearly indicating the size and spacing of all framing members and sizes of rooms and the position of staircases, ramps and lift wells.
- b) The use of all parts of the building.
- c) Thickness of walls, floor slabs and roof slabs with their materials. The section shall indicate the height of building and height of rooms and also the height of the parapet, the drainage and the slope of the roof. At least one section should be taken through the staircase. The position, form and dimensions of the foundation, wall, floor, roofs, chimneys and various parts of the building, means of ventilation and accesses to the various parts of the building and its appurtenances also should be shown in one cross section.
- d) The building elevation from the major street.
- e) The level of the site of the building, the level of lowest of building in relation to the level of any street adjoining the cartilage of the building in relation to one another and some known datum or crown of road.
- f) Cabin plan.

- g) The north point relative to the plans.
- h) The forms and dimensions of every water closets, privy, urinals, bathrooms, cesspools, well and water tank or cistern to be constructed in connection with the building.
- i) One copy of the detailed working drawing including structural details based on the approved building plan shall be submitted before 7 days of commencement of the construction work at site for information and record. The applicant will inform the authority the date for commencement of work". Provided that in the case of individual residential buildings up to G+2 on a plot not more than 500 sq.mts. in size, the Competent Authority shall not enforce, on request of the owner/developer, to submit such details, subject to the condition that for such area similar types of structures and soil investigation report are already available on record.

(III) For high rise building and for special building like assembly, institutional, industrial storage and hazardous occupancy the following additional information shall be furnished/indicated in the following plans in addition to the items under clause 3.3.

- a) Access to fire appliances/vehicles with details of clear motorable access way around the building and vehicular turning circle.
- b) Size (width) of main and alternate staircase along with balcony approach, corridor, ventilated lobby approach as the case may be.
- c) Location and details of lift enclosures.
- d) Location and size of fire lift.
- e) Smoke stops lobby/door, where provided.
- f) Refuse chutes, refuse chamber, service duct etc. where to be provided.
- g) Vehicular parking space.
- h) Refuse area, if any.
- i) Details of building services, air-conditioning system with position or dampers, mechanical ventilation system, electrical services, boilers, gas pipes etc. where provided.
- j) Details of exits including provision of ramps etc. for hospitals.
- k) Location of generator, transformer and switch gear room where required.
- l) Smoke exhauster system, if any.
- m) Details of fire alarm system network.
- n) Location of centralised control, connecting all fire, smoke, built-in fire protection arrangements and public address system etc. where required.
- o) Location and dimension of static water storage tank and pump room.
- p) Location and details of fixed fire protection installations such as sprinkles wet risers, house reels, drenchers, CO2 installations etc.
- q) Location and details of first-aid fire fighting equipment /installations.
- r) Location for electric transformer.

CHAPTER – II**4 GENERAL REQUIREMENTS FOR DEVELOPMENT**

(1) REQUIREMENTS OF SITE:

No land shall be used as a site for the construction of building.

- (a) if the site is not drained properly or is incapable of being well drained;
- (b) if the use of the said site is for a purpose which in the Competent Authority's opinion may be a source of danger to the health and safety of the inhabitants of the neighbourhood,
- (c) if the Competent Authority is not satisfied that the owner of the building has taken the required measures to safeguard the construction from constantly getting damp;
- (d) if the level of the site is lower than the Datum Level prescribed by the Competent Authority depending on topography and drainage aspects.
- (e) for assembly use, for cinemas, theatres, places of public worship, residential hotels, lodging and boarding houses, unless the site has been previously approved by the Competent Authority and the Commissioner of Police;
- (f) unless it derives access from an authorised street/means of access described in these Regulations;
- (g) if the proposed development is likely to involve damage to or have deleterious impact on or is against urban aesthetic of environment or ecology and/or on historical / architectural/esthetical buildings and precincts or is not in the public interest.
- (h) if the site is found to be liable to liquefaction by the Competent Authority under the earthquake intensity of the area, except where appropriate protection measures are taken to prevent the liquefaction.
- (i) If the Competent Authority finds that the proposed development falls in the area liable to storm surge during cyclone, except where protection measures are adopted to prevent storm surge damage.

(2) INSPECTION**(a) Inspection at various stages :-**

The Competent Authority at any time during erection of a building or the execution of any work or development, make an inspection thereof without giving prior notice of his intention to do so.

(b) Inspection by Fire Department :-

For all multi-storied, high-rise and special building the work shall also be subject to inspection by the Chief Fire Officer, or Competent Authority shall issue the occupancy certificate only after clearance by the said Chief Fire Officer/Competent Authority.

(c) Unsafe building :-

All unsafe building shall be considered to constitute danger to public safety hygiene and sanitation and shall be restored by repairs or demolished or dealt with as otherwise directed by the Competent Authority as prescribed in the safety regulation.

5 DEVELOPMENT OF LAND

1 REQUIREMENT OF ROAD WIDTH

The width of the internal roads in a layout for different purposes and the width of internal approaches for tenements and ownership tenement flats shall be regulated as under :-

WIDTH OF ROADS

Sr. No.	Road length	Width of road for residential use(mts)	Width of Road for commercial, industrial and other non residential use(mts)
1.	Upto 75 mts.	6.0 mts.	9.0 mts.
2.	Above 75 mts. and upto 150 mts	7.5 mts.	9.0 mts.
3.	Above 150 mts. and upto 300 mts.	9.0 mts.	12.0 mts.
4.	Above 300 mts. and upto 450. mts.	10.5 mts.	15.0 mts.
5.	Above 450 mts.	12.0 mts.	18 .0 mts.

Curves at the junction : The curves shall be provided at the junction of roads as prescribed below:

- 4.5 Mts. radius if the width of the road is 7.5 Mts. or less.
- 6.0 Mts. radius if the width of the roads is more than 7.5 Mts. but not more than 18 Mts.
- 7.5 Mt. radius if the width of the road exceeds 18 Mts.

Provided that at the junction of the roads, the width of the wider road shall be taken into consideration in determining the radius of curvature.

2 COMMON PLOT

Common Plot shall be required as under:

a. FOR RESIDENTIAL USE AND COMMERCIAL USE:

- In a building unit of 2000 sq.mts. or more in area, the common plot shall be provided.
- The minimum area of the common plot shall be 10% of the building unit.
- Common plot shall be provided in high rise building irrespective of area of building unit.

b. FOR INDUSTRIAL USE:

- No common plot shall be provided for building unit upto 5000 Sq.Mts.
- In a building unit of more than 5000 Sq.Mts. and upto 20000 Sq.Mts. in area, the common plot shall be provided at the rate of 8% of the area of the building unit.
- In a building unit of more than 20000 Sq.Mts. in area the common plot shall be provided at therate of 1600 Sq.Mts. plus 5% of the area of the building unit in excess of 20000 sq.mts.

3 GENERAL REQUIREMENT

(1) The common plot area shall be exclusive of approaches, margins No projection shall be permitted in common plot.

(2) Minimum size of the common plot shall be 300 sq.mts with no side less than 12.0 Mts.

(3) No construction shall be permitted in the common plot. Only electric sub station, over head water tank, under ground water tank, watchman room, community hall for occupier of respective sub plots or tenaments or flats, tube well and rain water recharge well shall be permitted subject to margin as per this regulations and maximum 15% of respective common plot area.

(4) The area of the common plot may be permitted to be sub-divided provided that the common plot has a minimum area of 300 Sq.Mts with no sides less than 12.0 Mts.

Provided for a group housing,(building with Ground floor plus two upper floors without hollow plinth), further sub-divisions of the common plot may be allowed by the Competent Authority

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(5) The area of this common plot shall be not deducted for the consideration of Floor Space Index of a building unit.

6 DEVELOPMENT REQUIREMENTS

1 MARGINS, MAXIMUM BUILTUP AREA AND FSI FOR OTHER THAN INDUSTRIAL USE

SR. NO.	PLOT AREA (in sq. mts.)	MINIMUM SIZE OF THE SIDE OF THE PLOT (in mts.)	FRONT MARGIN (in mts.)	REAR MARGIN (in mts.)	SIDE MARGINS (in mts.)	MAXIMUM PERMISSIBLE BUILTUP AREA (in %age)	MAXIMUM PERMISSIBLE FSI
1	2	3	4	5	6	7	8
1	Upto 100	6.00	3.00	1.50	1.00 (any one side)	60 %	<u>Residential</u> Low rise=1.20 High rise=1.30 <u>Commercial</u> 1.3
2	Above 100 and upto 200	8.00	3.00	2.00	2.50 (any one side)	50 %	
3	Above 200 and upto 500	10.00	4.50	3.00	3.00	40 %	
4	Above 500 and upto 1000	12.00	4.50	3.00	3.00	40 %	
5	Above 1000	15.00	6.00	3.00	3.00	40 %	

NOTE: Minimum plot area for high rise buildings shall not be less than 1500 sq.mts.

2 MARGINS, MAXIMUM BUILTUP AREA AND FSI FOR INDUSTRIAL USE

SR. NO.	PLOT AREA (in sq. mts.)	ROAD WIDTH (in mts.)	FRONT MARGIN (in mts.)	REAR MARGIN (in mts.)	SIDE MARGINS (in mts.)	MAXIMUM PERMISSIBLE BUILTUP AREA (in %age)	MAXIMUM PERMISSIBLE FSI
1	2		3	4	5	6	7
1	Above 1500 and upto 3000	Over 9.00 mts.	7.50	6.00	6.00	50 %	1.20
2	Above 3000 and upto 4000	Over 12.00 mts.	10.00	10.00	10.00	40 %	1.20
3	Above 4000	Over 18.00 mts.	15.00	15.00	15.00	35 %	1.00

3 MINIMUM AREA OF A BUILDING UNIT

- (a) Building unit with area of 100 Sq.Mts. may be allowed on roads upto to 9 mts. width. Building unit with area more than 100 sq. mts. and upto 200 sq.mts. may be allowed on roads upto 12 mts. width.

The Building Unit having rectangular shape having the ratio between the length of the adjacent side shall not be more than 2. However, this condition of ratio will not be applicable, if the smaller side of the Building Unit is 10.50 mts. or more in length.

Minimum area of a building unit for high rise building shall be 1500 sq.mts and it shall front on at least 18 mts. or more wide roads and that the frontage of the plot on such roads shall not be less than 15 mts.

- (b) Minimum area of a Building Unit for primary school and High school shall be 1000.00 sq. mts.
(c) Minimum area of Building Unit for Educational institute, community hall, marriage hall, Town hall, Assembly hall (All types of hall), cinema, theatre shall be 2000.00 sq. mts.
(d) Minimum area of a Building Unit for petrol pump without service station shall be 1000.00 sq. mts. and petrol pump with service station shall be 2000.00 sq. mts.
(e) Minimum area of building unit for worship and Religious places shall be 500 sq.mts. and maximum built-up area shall not be more than 20% of the building unit area.

4 MINIMUM SIZE OF BUILDING UNITS

Sr.No.	Unit	Minimum area (in sq.mts.)	Minimum size of the side (in mts.)
1	2	3	4
1	Room, shop, office	9.00	2.40
2	Kitchen, store room	6.00	2.00
3	Pooja room, bathroom, pump room, dress room	1.35	0.90
4	Garage	13.50	2.7-width 3.00 -max.height
5	Toilet	0.81	0.90
6	Study room	5.00	1.80

5 PERMISSIBLE BUILT UP AREA IN MARGIN :

Notwithstanding anything contained in these regulations, construction such as w.c., bathroom, servant quarter, and parking garage shall be permitted in one of the corners of a rear marginal space of an individual or semidetached residential building unit (except ownership flats /tenements) subject to following conditions :

- The maximum permissible area of construction shall be 16.50 sq.mts. may be allowed for servant's quarter, bath-room w.c. or closed parking having maximum dimensions 5.5 mt. x 3.00 mt.
- The maximum height of construction shall be 3.0 Mts. with maximum plinth of 30 cms.
- No First floor shall be permitted over such a construction.
- It shall be exclusively used for any residential use such as W.C., bath room, servant quarters and for parking garage etc.
- It shall be considered towards calculation of maximum permissible built-up area and floor space index of the building unit.
- The location of the said construction can be alternatively permitted from the rear corner upto a maximum distance of half the length of the side.
- Openings doors, windows and any type of projections shall not be permitted over looking adjoining property. The slope of the roof of such structure shall be towards the inner side of the same building unit and away from the adjoining building unit.
- Under ground water tank a surface water tank up to 1.5 mts. in height from ground level, well a tube well and a pump-room as directed by appropriate authority with maximum size of 1.5 mts x 1.5 mts. with a height not more than 1.8 mts. and electric sub-station according to the norms of G.E.B. shall be permitted in margin of a building unit.

Provided that the sub station shall be permitted above ramp leading to celler after keeping require head way.

- Notwithstanding anything contain in this regulations, construction of security room to the extent of 15 Sq.mrts shall be permitted (including transformer room, meter room and toilet). Provided that such construction shall be permitted attach to

the entrance gate to the plot only, with minimum height of 2.4 mts. from ground level and shall not be less than 4.5 mts. from the building in case of industrial use and the transformer room, sub station and meter room as per norms of G.E.B shall be permitted in the margin for all uses other than industrial use.

The area of such construction shall not be considered towards calculations of permissible build up area and Floor Space Index (F.S.I).

6 RESTRICTION ON DEVELOPMENT IN MARGIN

- (a) The marginal open spaces as provided in the above sub-clauses shall be kept permanently open at ground level and they shall not be used for stocking materials or loose articles for the purpose of trade or otherwise nor shall they be used for putting up fixed or movable platforms, over hanging or any other encroachments of any kind provided that decorative advertisements boards or neon sign boards may be permitted in 4.5mts. margin of a building unit abutting on roads having width of 18.0 mts or more with prior permission of the Competent Authority and such approval shall not be given for a maximum period of three years. The sunk-in-lower ground floor or semi-basement or basement shall not be provided in marginal space. The boundary of the plot shall have to be demarcated by at least 0.6 Mt. parapet/compound wall/railing.
- (b) The plot level may be permitted to be raised up to plinth level in cases of Building Units other than tenement buildings, ownership tenement flats, industrial and commercial units.
- (c) Security cabin with maximum size of 2.0 mts. X 2.0 mts. and a height not more than 2.4 mts. shall be permitted in the roadside margin.
- (d) 0.6 mts. Architectural projection shall be permitted in margins, which shall not be an extension of the slab & shall not be used for habitable purpose.

7 PROJECTIONS IN MARGINS

(i) In any marginal open space, weather sheds projections shall be permitted up to 0.60 Mts. at the height of 2.0 Mts. from the floor level. But not in continuation with floor slab. However it shall not be allowed to be covered in any case so as to add to the usable floor area.

(ii) In case of detached and semi-detached residential dwelling building unit 1.00mt. wide open cantilever stair with maximum 2.00 mts landing space at floor level shall be permitted in the 3.00 mts and above marginal space except road side margin.

8 MARGINS FROM COMMON PLOT

- (i) 3.00 Mts. shall be required in case of low rise building.
- (ii) 6.00 Mts. shall be required in case of high-rise building.

9 OPEN SPACE

1) Open Air Space

The minimum width of any interior open air space / chowk, which is used for light or ventilation of the rooms, smaller side of it shall not be less than

- a. for low rise building 1.8 mts and
- b. for high rise building 3.0 mts.

The open air space / chowk shall be provided at the level at which the light or ventilation is borrowed.

2) OPEN SPACE TO BE OPEN TO SKY

Every open space whether exterior or interior, provided in pursuance of any regulations, bye-laws or under an agreement lodged with the Competent Authority shall be kept free from any erection thereon and shall be kept open to sky. Every such open space or chowk shall have suitable and sufficient access. No open drain, except for rain water, shall be constructed in any open space required by these regulations.

No construction work of a building shall be allowed if such work operates to reduce an open air space of any other adjoining building belonging to the same owner to an extent less than what is prescribed by any of these regulations in force at the time of the proposed work to further reduce such open space if it is already less than what is prescribed.

10 MISCELLANEOUS

- 1) No development shall be permitted in area designated for water body, pond and talav
- 2) The religious building shall be permitted in all use zone with consent of the competent authority
- 3) Permission for Clubs, Wadis, & Party Plots shall be permitted only if it comply with following requirements.
 - a. Minimum building unit required is 2000 sq.mtrs
 - b. It shall be permitted on roads having width of 18.00 mts. or more.
 - c. A garbage container of minimum 4.00 Ton capacity with 6.00 mtrs X 7.50 mtr paved area shall be provided for garbage disposal, abutting the road.
 - d. All necessary permission and N.O.C. shall be obtained from relevant offices, before commencing the use.
 - e. To see that the place is use according to provision of this regulation, competent authority can collect, security deposit from the plot owners as may be decided by competent authority from time to time.
 - f. Parking shall be provided as per regulations.

7 COMPOUND WALLS AND GATES

- 1** Detailed drawings of gates and boundary walls shall be submitted along with the application for development permission.
- 2** No cactus hedge shall be allowed along the boundaries of a plot in any portion of the development area.
- 3** A road side compound wall not exceeding 1.5 mts .in height from the crown of the road shall be permitted while on the other side along the boundary of the building unit, the maximum height of the compound wall shall be 1.8mts. only A compound gate shall not be constructed or permitted on the curvature of the compound wall at the junction of the roads.

Provided that in the case of building units having area of more than 2000 sq.mts. gate-pillar (hollow) to an extent of 1.44 sq.mts. internal area may be allowed up to the height of 2.4 Mts.

Provided further that in the case of plots at the junction of streets, no boundary wall below the fence grill(with at least 50% perforation) facing the streets shall be raised to the height more than 0.8 Mt. from the kerb for a length of 9 Mts. from the junction of the streets.
- 4** Except on the junction of the roads where heights shall be prescribed as per standard design of a compound wall approved by the competent Authority. In case of mills, Buildings of competent Authority, Municipality and Government, the Authority may allow the compound wall to be raised to a height not exceeding 3 Mts. from the crown of the road in front and on sides.
- 5** No partition wall shall be allowed anywhere in the margins of building unit.

Provided that a partition wall upto 1.5 Mts. height shall be permitted on common boundary of semi-detached building and marginal distances between two structures.
- 6** The plots of active burial-grounds and crematorium abutting on the main road in residential locality shall be provided by the owners with a compound-wall having a height not less than 1.5 Mts. from the crown of the road in front.
- 7** No gates of compound wall shall open outward and shall be provided with a contrivance which shall prevent the gate from opening outward on the foot-path or road.
- 8** The entry or exit to the plot situated on the junction of the roads having a width of 12 meters or more shall be located at least 15 meters away from the corner point of the plot on such junctions.

If the length of a side in such a plot is less than what is prescribed above, such entry or exit shall be provided at the farthest end of the plot from the junction.

8 DISTANCE FROM WATER COURSE

No development whatsoever, whether by filling or otherwise shall be carried out within 30 Mts. from the boundary of the bank of the river where there is no river embankment and within 15 Mts. or such distance as may be prescribed under any other general or specific orders of Government and appropriate Authority whichever is more, from river where there is river embankment but in case of kans, nala, canal, talav, lake ,water-bodies etc. it shall be 9.00 mts.

9 GROUP HOUSING

Residential cluster type development shall be permitted with following conditions:-

- (i) Minimum size of the building unit shall be 4000 sq.mts.
- (ii) Minimum size of the dwelling unit shall be 50.00 sq.mts
- (iii) Maximum permissible height shall be 10.00 mts.
- (iv) Hollow plinth shall not be permitted.
- (v) Margin from the public road shall be as per the above regulation. The distance between two clusters shall be 4.5 mts. and between clusters to building unit boundary shall be 3.0 mts.
- (vi) The approach roads shall be regulated as per the above regulation.
- (vii) Minimum area of common plot plus central court Yard shall be provided at the rate of 10% of the plot area out of which minimum 2.5% of the plot area shall be provided as common plot and the minimum size of the common plot shall be 300 sq.mts.
- (viii) The central court Yard shall be of minimum 120 sq.mts. with smaller side shall not be less than 10.00 mts.
- (ix) Access to the central court Yard from the approach road shall be of 2.5 mts. in width and shall not exceed 15.00 mts. in length. Shutters of window or door shall not be permitted to open in this access at ground floor.
- (x) The central court Yard shall be enclosed from all sides by dwelling units having access of 1.5 mts. on the periphery of central court yard. Moreover, entrance to the dwelling unit shall be permitted from the approach to the central court Yard.
- (xi) In this central court Yard underground water tank, soak well, septic tank; tube well and percolating well shall be permitted.

CHAPTER – III**10 GENERAL BUILDING REQUIREMENTS**

1 ELEVATORS (LIFTS)

A lift shall be provided in all buildings as prescribed hereunder:

(I) In case of Building having height more than 13.0 mts from ground level, lift shall be provided.

(ii) Lift shall be provided at the rate of one lift for 20 tenements of all the floors, or part thereof for residential buildings and at the rate of one lift per 1000.00 sq.mts. or part thereof of built-up area for non-residential buildings.

The tenement and built-up area on ground floor and two upper floors shall be excluded in computing the above requirement.

Lift shall be provided from ground floor and shall have minimum capacity of six persons. On the basis of detailed calculations based on the relevant provisions of National Building Code, the number of lifts can be varied.

(iii) Notwithstanding anything contained in the Development Control Regulations in case of building with 21 meters or more in height, at least two lifts shall be provided.

2 FIRE PROTECTIONS :

In case of high rise buildings, the following provision shall be made for safety of buildings from fire;-

(i) In addition to the requirement under Regulation No.17.1 at least one lift designed as fire-lift as defined in the National Building Code shall be installed.

(ii) At least one stair-case shall be provided as a fire staircase as defined in the National Building Code. Provided that this shall not be applicable if any two sides of a staircase are kept totally open to external open air space.

(iii) Water Supply: Underground tank as specified in recommendation of export committee on fire safety, as fire tank, shall be provided.

(iv) In high rise buildings, the internal fire hydrants shall be installed as provided in the National Building Code or as prescribed in the Indian Standard Code of practice for installation of internal fire hydrants in high rise buildings. The detailed plan showing the arrangement of pipe lines, booster pumps and water-tanks at various levels shall be submitted for approval of the concerned authority along with the plans and sections of the buildings.

(v) In case of high rise buildings, an external fire hydrant shall be provided within the confines of the site of the building and shall be connected with Municipal Water mains not less than 4" in diameter. In addition, fire hydrant shall be connected with Booster Pump from the static supply maintained on site.

(vi) In case of high rise buildings separate electric circuits for lift installation, lighting of passages, corridors and stairs and for internal fire hydrant system shall be provided.

(vii) All the requirements under the above regulations/ shall be clearly indicated on plans duly signed by the owner and the person who has prepared the plans. The Competent Authority may direct the owner to submit such further drawings as may be necessary, to clarify the implementation of the provisions of the above regulations/.

(viii) Every building having a height of more than 25 Mts. shall be provided with diesel generators which can be utilized in case of failure of the electricity.

- (ix) The standard of National Building Code must be adopted fully in providing stair-case and alarm system.
- (x) There should be Provision of dry-powder, fire extinguisher to the extent of two on each floor with a capacity of 5 kgs. in all the high rise buildings.

3 SAFETY OF BUILDINGS :

- (1) All external walls shall be as per the provisions of National Building code and I.S. Specifications.
- (2) The thickness of the load bearing walls in the case of masonry walled building shall be as under:

Building with	Thickness of wall			
	On G.F.	On F.F.	On. S.F.	On. T.F.
(i) Ground + One floor	23 cm	23 cm		
(ii) Ground + Two floors	23 cm	23 cm	23 cm	
(iii)Ground + Three floors.	35 cm	23 cm	23 cm	23 cm

In case of cellars the external walls shall be of R.C.C. only and it shall have minimum thickness of 23 cms. or 45 cms. brickwork in case of brickwork.

- (3) Subject to any of the above regulations every person who undertakes construction of a building and/or who designs the structural member of the building shall comply with the provisions of National Building Code prevailing at the relevant time or the provisions of the Indian Standard Specifications published from time to time.
- (4) Every person who undertakes the construction work on a building or directs or supervises such works shall be responsible and shall ensure use of sound and good quality building materials, properly put together for optimum safety. He shall be liable for all consequences arising out of breach of this regulations.

4 PLINTH :

- (a) Habitable rooms shall have minimum plinth height of 0.45mt from ground level.
- (b) Parking garage may have no plinth.
- (c) Provided that the ground floor of a building may be permitted on stilts/pillars instead of a solid plinth with a clear height of 2.4 Mts. in case of slabs with beams height should not exceed 2.8 Mts. and further that this space shall at all times be kept free from any enclosure except for genuine stair-case.

Provided further that a electric meter room, room for telephone D.B.; bath-room, water-room, stair-case room, pump room, water closet, servant room, security cabin may be permitted subject to maximum built-up area of 15smt allowed with a minimum plinth 30cms and this area shall not be considered towards computation of F.S.I.

5 CELLAR :

In a building unit, the cellar may be permitted on the following conditions:

- (i) Area and extent: The total area of any cellar (basement) shall not exceed twice the plinth area of the building, or the area of the plot whichever is less. It may be in one level or two. No cellar shall be permitted in the required minimum marginal space from plot boundary of building unit. Cellar shall be permitted under common plot, internal road and internal marginal

space for exclusive use of parking only.

- (ii) Height of the cellar shall not be less than 2.6 Mts. clear from top of the flooring to the bottom of the lowest structural member.
- (iii) Clear width of the stair leading to the cellar shall not be less than the width of the regular staircase leading to upper floors.
- (iv) No stairs to be constructed under these regulations shall consist of any wooden material.
- (v) Adequate opening for ventilation should be provided as directed by Competent Authority. The materials of the construction and fixtures of the cellar should be of fire resisting nature and in no case, wood shall be used as structural part of the cellar or any fixtures thereof. The extent of ventilation shall be the same as required by the particular occupancy for which the basement is used. Any deficiency must be made good by resort to a mechanical system, viz. blowers, exhaust fans, air conditioning system, according to the standards in Part VIII Building Services, Section-I Lighting and Ventilation, National Building Code.
- (vi) No water connection or drainage connection shall be permitted in the cellar.
- (vii) In no case cellar shall be permitted to be connected with normal drainage line.
- (viii) Uses permitted:- parking, safe deposit vault, A.C. Plant, storage other than inflammable material.

Note : Area use for parking purpose only shall be deducted for counting F.S.I.

- (ix) In genuine requirement of parking, the competent authority may permit the second cellar if the parking space available at ground level and in first cellar is not sufficient, for the reasons stated in writing.

6 HEIGHT OF FLOORS:

Minimum height of floors in building at any point shall be 2.8 Mts. for residential and commercial uses and 3 meters or as per Factory Act or other relevant Act in case ground floor and upper-floors in a building used for offices for ancillary uses of factories, workshops, godowns and other industrial purposes.

Provided that in case of folded roof the minimum height of 3.0 Mts. shall be measured from the lowest point of the fold.

Provided that in case of gabled or slopping roof the minimum height below the lowest part of roof, shall not be less than 2.2 Mts. and an average height of the rooms shall not be less than the minimum prescribed here above.

Provided further that in case of trussed-roof, the minimum height shall be measured from the pavement to bottom of the tie beam

Provided that for verandah, Bathroom, W.C., passages, puja room, store room, stair cabin, minimum height of 2.00 mts.

7 LOFT :

The loft at a minimum height of 2 mts. from floor level not exceeding 30% floor area of the room may be allowed in any room.

8 STAIRS, LIFTS, LOBBIES AND CORRIDOR :

The width of lobbies or corridors in building shall be as under:

- (a)(i) In case of residential and non-residential building except individual detached building minimum clear width of corridor shall be as under:

Length of Corridor (in Mts.)	Width of Corridor	
	Residential	Non-Residential
Upto 6	1.0	1.2
Upto 9	1.2	1.5
Upto 15	1.2	2.0
Above 15	1.5	2.5

NOTE:-

- (i) For every additional 9.00 mts. length or part there of the width of corridor shall be increased by 0.30 mts. upto a maximum of 3.00 mts.
- (ii) In case of starred hotels, the width of the corridor shall be as per the authorized standards of the starred hotels.
- (b) whereas in case of residential dwelling unit occupied by single family and constructed upto three floors width of the stairs shall not be less than 1.0 mtr.
- (c) In case of all non-residential and high rise residential buildings, the clear width of stair and landing exclusive of parapet shall not be less than 1.5 Mts.
- (d) Minimum stair width for more than 6 tenements on each floor shall be 1.5 Mts.
- (e) The stair-case & lifts (elevators) shall be so located that it shall be within accessible distance of not more than 25 Mts. from any entrance of tenement or an office provided on each floor.
- (f) The design of the lift & stair along with the tread and riser shall comply with the provisions of the National Building Code for that class of building.
- (g) No winders shall be allowed except in case of individual dwelling unit.

9 SANITARY ACCOMMODATION :

All the buildings when erected or re-erected from foundation or when additions to the floors are made shall be provided with minimum sanitary accommodation.

- (a) In the case of use of building as office and public building except cinemas, theatres, meetings and lecture halls, minimum sanitary facilities should be provided as under:
 - (i) Every office building or public building shall be provided with at least one water closet.
 - (ii) Water closets shall be provided for each sex and the number of such water closets for each sex shall in every case be based upon the maximum number likely to occupy such building at any one time.
 - (iii) One urinal shall be provided for every 25 males or part thereof and one water closet for every 25 females or part thereof upto 100 persons. For any number exceeding 100, one urinal for every 50 persons shall be provided.
 - (iv) There shall be provided one water-closet for every 50 persons of each sex or part thereof upto 500 persons and for excess over 500, one water closet for every 100 persons of each sex or part thereof shall be provided. However, if the total number of employees in such a building or the number of persons likely to use such building does not exceed 20, one water-closet each for both sexes shall be sufficient and no urinal may be provided.
 - (v) The building shall be deemed to be occupied by persons or employees at the rate of

one per every 5 square metres of the floor area and sanitary facilities shall be provided according to the number of employees or occupants so worked out.

- (vi) Such water-closet and urinals shall be in an accessible location and shall be provided with signs plainly indicating their purposes and the sex for which they are meant.

(b) Industrial Buildings and Warehouses:-

All types of industrial buildings shall be provided with minimum sanitary facilities as under:

- (i) Every such building shall be provided with at least one water closet to privy:
 (ii) Water closets or privies shall be provided for each sex and number of such closets or privies for each sex shall in every case be based upon the maximum number or persons of that sex employed in occupying such building.
 (iii) Water-closets or privy accommodation shall be provided in every W.C. on the following scale:

Where females are employed there shall be at least one water closet or one privy for every 25 females. Where males are employed, there shall be at least one water-closet or one privy for every 25 males.

Provided that where the number of males employed exceed 100, it shall be sufficient if there is one water closet or one privy for every 25 males up to the first 100, and one water closet or one privy for every 50 thereafter.

In calculating the number of water closets or privies required under these regulations any number of workers less than 25 or 50, as the case may be shall be reckoned as 25 or 50 and the number of workers to be considered shall be the maximum number employed at any one time during the day.

- (iv) In every such factory there shall be provided one urinal for every 100 persons of each sex or any less number thereof.
 (v) In every such factory there shall be provided one washing place of 3.6 square metres in area with sufficient number of taps as per standards laid down by rules in respect of factories.
 (vi) In every building of the warehouse class there shall be provided one water closet for every 50 males or any less number thereof and one water closet for every 50 females or any less number thereof and one water closet for every 50 females or any less number thereof. There after water closet shall be provided at the rate of one closet for every 70 persons.
 (vii) In every building of the warehouse class, there shall be provided one urinal for every 100 persons of each sex or any less number thereof.
 (viii) For the purpose of determining the number of water-closets and urinals each 30 sq.mts. of the gross floor space of such building shall be deemed to be occupied by one person.
 (ix) Such water-closets and urinals shall be accessible in location and shall be provided with signs plainly indicating their purpose and the sex for which they are meant.

(c) Educational Buildings :

Any building used for educational purpose shall be provided with minimum sanitary facilities as follows:

- (i) Subject to minimum provisions of two water-closets and five urinals, there shall be one water-closet and four urinals for every 200 students or part thereof.
 (ii) Competent Authority may enforce the distribution of the above sanitary facilities to be provided at each floor of the building.

- (iii) The building shall be deemed to be occupied by students at the rate of one student per every 1.00 sq.mt. of the floor area of all the class-rooms and sanitary facilities shall be provided according to the number of students so worked out.

(d) Residential Building or Residential Tenements:

Each residential building or residential tenement shall be provided with atleast one water closet.

10 VENTILATION:

- (a) Ventilation of Rooms: Every such room whether it is living room or a kitchen shall be constructed that the same have for the purpose of ventilation:

A window or windows and/or ventilators clear of the such frames, opening directly into an interior or exterior open air space or into an open verandah or gallery abutting on such open air spaces having an opening of not less than one tenth of the floor area of the room of an aggregate opening of doors, windows and ventilators of not less than one seventh of the floor area of the room.

Such aggregate opening in respect of sitting room, or dining room of three or more room tenements may be provided either by windows, ventilators or doors, if such room abuts on an open verandah or gallery.

- (b) Factories and buildings of the warehouses:- Every room in such building shall be lighted and ventilated by sufficient number of windows, ventilators and sky lights exclusive of doors having clear opening not less than 1/7th of the floor area abutting on open air space of width not less than 1/3rd of the height of the part of the building abutting such open space.

Provided that this requirement may be relaxed if artificial lighting and ventilation are installed to the satisfaction of the Competent Authority.

- (c) Ventilation of stair-cases:- Every stair case provided under the foregoing clauses shall be lighted and ventilated to the satisfaction of the Authority from an open air space not less than 1 sq.mt.
- (d) Windows in stair-case Bay: There shall be provided a window or windows of an aggregate area of atleast 1.2 sq.metres on each storey in such of the wall of the stair-case room which abuts on such 1 sq.mt. open air space to light and ventilate such staircase.

- (e) Ventilation from the Top and Skylight etc.:-Where an open well for light and ventilation, within the space enclosed by a stairway and its landings, is proposed to be provided, the least horizontal dimensions of which are equal to two times the width of the staircase then the requirements of clause(c) and (d) may be dispensed with provided that there shall be in the roof directly over each such stair well, a ventilating skylight with provided fixed or movable louvers to the satisfaction of the Competent Authority. The glazed roof of the skylight shall not be less than 3.7 sq. Mts. in area. No lift or any other fixture shall be erected in such staircase well.

11 LOCATION OF OPENINGS :

Every person who undertakes construction work on a building shall so locate every opening abutting on any open space that the sill of such opening shall not be less than 90 cms. above the level of the floor from which such opening is accessible.

Provided that if such opening is to be constructed flush with floor level its lower portion for a height of 90 cms. shall be protected by bars or grill or similar other devices to the satisfaction of the Competent Authority.

12 STAIRWAY :

Stairway shall conform to the following provisions in addition to items (i) to (vii) below. In addition, in order to satisfy fire fighting requirements any stairway identified as an exit stairway shall conform to the requirement stippled in fire protection regulations provided in these regulations.

- (i) **Width:-**The minimum width of a staircase other than a fire escape shall be as given in Table here under:

TABLE**Minimum width of common Stairway/Corridors for occupancies**

Sr. No.	Type of occupancy	Minimum width of staircase/ Stairway/Corridor(in meters)
(1)	(2)	(3)
1	Residential building (a) Low rise (b) Hotels and High rise	1.2 1.5
2	Educational building (a) Upto 24 m. high (b) Over 24 m. high	1.5 2.0
3	Institutional buildings (i.e. hospital) (a) Upto 10 beds (b) Over 10 beds	1.5 2.0
4	Assembly buildings	2.0
5	Mercantile, business, industrial storage, hazardous, buildings (a) Low Rise (b) High Rise	1.5 2.0

- (ii) **Flight :-**No flight shall contain more than 12 risers, but in residential buildings, in narrow plots and in high density Housing a single flight staircase may be permitted.
- (iii) **Risers :-** The maximum height of a riser shall be 19 cm. in a residential building and 16 cm. in any other occupancy. However, on an internal stairway within a dwelling unit a riser may be 25 cm. high.
- (iv) **Treads :-** The minimum width of the tread without nosing shall be 25 cm. for staircase of a residential building, other than fire escapes. In other occupancies the minimum width of the tread shall be 30 cm. It shall have a non-slippery finish and shall be maintained in that fashion.
- (v) **Head room :-** The minimum head room in a passage under the landing of a staircase under the staircase shall be 2.2 m.
- (vi) **Floor indicator :-** The number of each floor shall be conspicuously painted in figures at

least 15 cm. large on the wall facing the flight of a stairway or at such suitable place as is distinctly visible from the flights.

- (vii) **Hand Rail :-** Hand rail a minimum height of 0.9 m. from the centre of the tread shall be provided.

13 RAMPS :

(1) Ramps for pedestrians:

(a) **General:-** The provisions applicable to stairway shall generally apply to ramps. A ramp in a hospital shall not be less than 2.25 Mts. wide in addition to satisfy the fire fighting requirements,

(b) **Slope:-** A ramp shall have slope of not more than 1:10, it shall be of non-slippery material.

(c) **Handrail:-** A handrail shall be provided on both the sides of the ramp.

(2) **Ramps for handicapped people :-** The provision of the ramp with a handrail to every public building on ground floor only as compulsory for handicapped people, as per the revised National Building Code.

(3) **Ramp for basement or storied parking :-** For parking spaces in a basement and upper at least two ramps of adequate width and slope shall be provided preferably at the opposite and such ramps may be permitted in the side and rear marginal open spaces, after leaving sufficient space for movement of firefighting equipments.

14 ROOFS :

(i) **Effective drainage of rain water :-** The roof a building shall be so constructed or framed as to permit effectual drainage of the rain water there from by means of rain water pipes. Such pipes shall be so arranged, jointed and fixed as to ensure that the rain water is carried away from the building without causing dampness in any part of the walls or foundations of the building or those of adjacent buildings.

(ii) **Manner of fixing rain water pipes :-** Rain water pipes shall be affixed to the outside of the walls of the building or in recesses or chases cut or formed in such walls or in such other manner as may be approved by the Competent Authority.

15 TERRACE :

Terraces shall be free from partitions of any kind and accessible by a common staircase.

16 PARAPET :

Parapet walls and handrails provided on the edges of the roof, terrace, balcony, etc. shall not be less than 1.15 Mts. from the finishing floor level and not more than 1.3 Mts. height above the unfinished floor level. Parapet construction shall be made of material and design, such that it ensure optimum safety to the user/occupants of the building.

17 MOSQUITO-PROOF WATER TANK :

Water storage tank shall be maintained that perfectly mosquito-proof condition, by providing a properly fitting hinged cover and every tank more than 1.50 Mts. in height shall be provided with a permanently fixed iron ladder to enable inspection by anti-malaria staff.

18 REFUSE AREA/DISPOSAL OF SOLID WASTE :

Wherever a property is developed or redeveloped, a space for community-Bin for disposal of Solid Waste shall be provided in the road-side front marginal open space. The owners/occupants shall be required to provide the community-Bin with air-tight cover on top at the standards

prescribed as follows :

- (i) The size of community bin (container) shall be calculated at the rate of 10 liters capacity per tenement/dwelling unit, for Residential use of building; provided that the maximum capacity of container shall be 80 liters. The numbers of bins shall be calculated on the basis of total no. of dwelling units/tenements.
- (ii) The size of community -Bin (container) shall be calculated at the rate of the 20 liters capacity for each 100 SMT of floor-area, in case of non-residential use of building; provided that the maximum capacity of container shall be 80 liters. The number of bins shall be calculated on the basis of total no. of dwelling units/tenements.
- (iii) Provided that in case of Hospitals, Hotels, Restaurants like uses the disposal of Solid Waste shall be carried out as per the norms decided by the authority from time to time.

19 DISCHARGE OF RAIN WATER:

No roof or terrace abutting on a public street shall be constructed without providing sufficient number of downtake pipes and such pipes shall be so fixed as to discharge the rain water at a level not higher than 0.6 metre above the street level.

20 PROVISION OF LETTER BOX

In all case of building having more than two floors including ground floor a letter boxes for each separate unit shall be provided at ground floor level in such a way that post man can easily deliver the posts in them.

CHAPTER - IV

11 REGULATIONS FOR SPECIAL STRUCTURES

1 SPECIAL STRUCTURE

Regulations for Cinemas, theatres, meeting halls, lecture halls and town-halls:

In addition to the requirements specified under Building Regulations, the following regulations shall also be applicable.

- (a) **Location:** The building for the above purpose shall be located directly on a road of 18 mts. or more in width subject to other regulations.
- (b) **Open Spaces:** In case of above uses, open spaces shall be provided as under:
- (i) Front open space of 12 mts. width from the side abutting on the road shall be provided. Such open spaces may be permitted to be covered up to 6mts. from the building line with a projected cantilever structure at a height of not less than 3.00 mts. from the ground level. Sides and rear open spaces of 6 mts. width shall be provided. In addition to the above, the Bombay Cinema Rules adopted by the State Govt. for cinemas and Janta theatres as amended from time to time, will also be applicable.
- (c) **Minimum Requirements:** The following requirement shall be provided:
- (i) The aggregate area of foyer exclusive of all passages shall be provided at every sitting-level at the rate of 0.1 sq.mt.per seat at that level, subject to minimum foyer width of 4.5 mts.
 - (ii) Entry and exit passages of minimum 3 meters width shall be provided.
 - (iii) Water-room and snack-bar shall be provided.
 - (iv) The booking-office shall always be so located that intending purchasers of tickets have not to queue up in open space.
- (d) **Plinth:** The plinth shall be measured at the foyer level and it shall not be less than 45 cms.
- (e) **Corridor:** No landing, lobby, corridor or passage, not being an internal passage between and/or across rows of seats, intended for use as an exit; shall be less than 3 meters in width and there shall be no recess or projections in the walls of such passages or corridors within 1.8mts. of the ground.
- (f) **Doors:** The auditorium doors shall be provided at the rate of not less than one door of a dimension of 1.5 meters in width and 2.1 meters in clear height for every 150 seats or part thereof. All outside doors for the use of the public shall be made to open outwards and in such manner that when opened, they shall not obstruct any gangway, passage, stairway or landing. These doors shall be provided in such a way that they open in aisles or cross-aisles provided under these Regulations .
- (g) **Balcony, its height, floor of an auditorium and arrangement of seats :**
- (i) The height of the bottom balcony of the gallery shall not be less than 3 meters from the floor of the auditorium.
 - (ii) The clear distance between the backs of two successive rows shall not be less than 100 cms. but for seats with rocking backs it may be 90 cms.
 - (iii) The minimum width of balcony steps shall be 80 cms. provided that for the front and rear steps this distance shall be 90 cms.
 - (iv) The minimum height of the roof or ceiling at the highest steps of the balcony shall be 3.0 meters and at no place the distance between the nodding and lowest projection ray shall be less than 2.4 meters.
 - (v) The minimum width of the seat shall be 50 cms. provided that 25 percent of the total seats may be permitted upto the width of 45 cms. to adjust the staggering of the seats. The width of the seats shall be measured from centre to centre of hand rails or arm rests.
- (h) **Aisles:** Clear aisles not less than 1.2 meters in width shall be formed at right angles to the line of seating in such number and manner that no seat shall be more than 3.8 meters away from any aisles measured in the line of seating. Where all these aisles do not directly meet the exit doors,

cross aisles shall be provided in such number and manner that no row of seats shall be more than 7 meters away from cross-aisles. The width of cross aisles shall be 1.2 meters.

Provided further that in computing the number of cross-aisles, the door connecting the aisles with foyer shall be considered as cross-aisles.

Explanation: The first cross-aisles in such a case shall be provided after the fourteen rows from the door.

(i) Sanitary Accommodations :

- (i) Water closet at the rate of one for 100 seats or part thereof and urinals at the rate of two for 75 seats or part thereof, at each seating level shall be provided.
- (ii) One wash-basin for every 200 seats or part thereof shall be provided.
- (iii) The above conveniences shall be suitably apportioned between two sexes.
- (iv) Such water-closet and urinals shall be in accessible location and shall be provided with signs plainly indicating their purpose and the sex for which they are meant.

(j) Visibility Requirement:

- (1) The seat nearest to the screen shall not be nearer than the effective width of the normal picture (ratio 1:1.33). This distance shall be $\frac{3}{4}$ in case of cinema scope and other wide angles techniques and one half in case of 70 mm presentations.
- (2) The elevation of the balcony seats shall be such that line of sight is not inclined more than 30° to the horizontal.
- (3) The seats should preferably be staggered side-ways in relation to those in front, so that a spectator in any rows is not looking directly over the head of the person immediately in front of him.
- (4) The position and height of the screen shall be regulated in such a way that the maximum angle of the line of vision from the front seat to the top of the screen shall not exceed 50.

(k) Ventilation: Every auditorium shall be lighted and ventilated by doors, ventilators and windows abutting on an interior or exterior open air space which shall not be less than 1/5th of the total floor area provided that if exhaust fans are installed or if the auditorium is air-conditioned, the requirement of this clause may be suitably relaxed by competent authority.

(l) Minimum Requirement of Stairs:

- (i) Except where otherwise provided under these Regulations/bye-laws the minimum clear width of all the stairs shall be 1.5 Mts.
- (ii) No stair-case shall have a flight of more than 15 steps or less than 3 steps and width of the landing between such flights shall be of the same width of the stair-case. The tread of the step shall not be less than 30 cms. The riser shall not be higher than 10 cms.
- (iii) No space less than 2.4 Mts. in height shall be allowed under the floor of auditorium.
- (iv) Except for a double-decker-cinema or theater, the access to the auditorium from the ground floor, if it is on upper floor or on stilts shall be provided by not less than three stairs; two of which shall be exit stairs. The clear width of these next stairs shall not be less than 2 meters.
- (v) The access to balcony floor from auditorium floor shall be provided by not less than three stairs, two of which shall be exit stairs.

Provided that if one exit stair is to be provided instead of two, its minimum width shall be 2.4 Mts.

- (vi) In case of double-decker-cinema or theater:

- (a) The access to upper class auditorium from ground floor shall be provided by at least three stairs out of which two shall be exit stairs with minimum clear width of 2 Mts.
- (b) The access to lower class auditorium from ground floor shall be provided by at least two stairs, one of which shall be exit stair.

(m) No permission shall be given for converting existing air-conditioned cinema theatre into non-air-conditioned cinema theater.

(n) AIR- CONDITION

The auditorium or the cinema should be air conditioned as per following general specifications:-

- [1] Temperature range- 72⁰ F to 80⁰ F
- [2] Change of Air per hour-approximate 10 times.
- [3] Relative Humidity 50 p.c. to 60 p.c.
- [4] Fresh air requirements. 7.5 C.F.M. per person approximately.

2 FIRE PROTECTION REQUIREMENTS

- (1) **GENERAL :-** The planning design and construction of any building shall be such as to ensure safety from fire. For this purpose, unless otherwise specified in these Regulations, the provisions of Part IV: Fire Protection Chapter, National Building Code, shall apply. For multi-storied, high-rise and special building, additional provisions relating to fire protection shall also apply. The approach to the building and open spaces on all sides upto 6 m. width and their layout shall conform to the requirements of the Chief Fire Officer. They shall be capable to taking the weight of a fire engine weighing upto 18 tones. These open spaces shall be free of any obstruction and shall be motorable.
- (2) **EXITS :-** Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of its occupants in case of fire or other emergency for which the exits shall conform to the following .
 - (i) **TYPES :-** Exits should be horizontal or vertical. A horizontal exit may be a door-way a corridor, a passage-way to an internal or external stairway or to an adjoining building, a ramp, a verandah or a terrace which has access to the street or to the roof of a building. A vertical exit may be a staircase or a ramp, but not a lift.
 - (ii) **GENERAL REQUIREMENTS :-** Exits from all the part of the building, except those not accessible for general public use, shall-
 - (a) provide continuous egress to the exterior of the building or to an exterior open space leading to the street;
 - (b) be so arranged that, except in a residential building, they can be reached without having to cross another occupied unit;
 - (c) be free of obstruction;
 - (d) be adequately illuminated;
 - (e) be clearly visible with the routes reaching them clearly marked and signs posted to guide any person to the floor concerned;
 - (f) be fitted if necessary, with fire fighting equipment suitably located but not as to obstruct the passage, clearly marked and with its location clearly indicated on both sides of the exit way;
 - (g) be fitted with a fire alarm device, if it is either a multi-storied, high-rise or a special building so as to ensure its prompt evacuation;
 - (h) remain unaffected by any alteration of any part of the building so far as their number,

width, capacity and protection thereof is concerned;

(i) be so located that the travel distance on the floor does not exceed the following limits :

(i) Residential, educational institutional and hazardous occupancies : 22.5 m.

(ii) Assembly, business, mercantile, industrial and storage buildings : 30 m.

NOTE:- The travel distance to an exit from the dead end of a corridor shall not exceed half the distance specified above.

When more than one exit is required on a floor, the exits shall be as remote from each other as possible.

Provided that for all multi-storied /high rise and special buildings, a minimum of two enclosed type staircases shall be provided, at least one of them opening directly to the exterior to an interior, open space or to any open place of safety.

3 REQUIREMENTS OF INDIVIDUAL EXITS AT EACH FLOOR :

The detailed requirements of individual exits at each floor are given below :-

(1) CORRIDORS :-

- (a) Exit corridors shall be of a width not less than the total required width of exit doorways leading from them in the direction of travel to the exterior/stairway.
- (b) Where stairways discharge through corridors, the height of the corridors shall not be less than 2.4 m.
- (c) Where there is more than one staircase serving a building, there shall be at least one smoke-stop door in the between the staircases.

(2) DOORWAYS :-

- (a) Every exit doorway shall open into an enclosed stairway, a horizontal exit or a corridor or passageway providing continuous and protected means of egress;
- (b) An exit doorway shall open outwards i.e. away from the room, but shall not obstruct the travel along any exit. No door, when opened, shall reduce the required width of a stairway or landing to less than 90 cm.
- (c) An 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; the level of the landing shall be the same as that of the floor which it serves.
- (d) Exit doorways shall be openable from the side which they serve, without the use of a key.

(3) REVOLVING DOORS :-

- (a) Revolving doors shall not be used as required exits except in residential, business and mercantile occupancies; they shall not constitute more than half the total required door width.
- (b) When revolving doors are considered as required exit ways-
 - (i) The multiplier in Table 18.1 shall be increased by 33.1/3 percent, and;

revolving doors shall not be located at the foot of a discharge through a lobby or foyer.

(4) INTERNAL STAIRWAYS :-

- (a) Stairways shall be constructed of non-combustible materials throughout.
- (b) Any interior staircase shall be constructed as a self-contained unit with at least one side adjacent to an external wall and shall be completely closed.
- (c) A staircase shall not be arranged around a lift unless the latter is entirely enclosed by a

material of fire resistance rating as that for type of construction itself. For multi-storied, high rise and special buildings, the staircase location shall be to the satisfaction of the Chief Fire Officer.

- (d) In multi-storied/high rise and special building, access to main staircases shall be gained through at least half-an-hour fire-resisting automatic closing doors placed in the enclosing walls of the staircases. They shall swing type doors opening in the direction of the escape.
- (e) No living space, store or other space, involving fire risk, shall open directly into a staircase.
- (f) The external exit door of a staircase enclosure at ground level shall open directly to the open space or should be accessible without passing through any door other than a door provided to form a draught lobby.
- (g) In multi-storied high rise and special buildings, exit signs with arrows indicating the escape route shall be provided at a height of 1.5 m. from the floor level on the wall and shall be painted with fluorescent paint. All exit way signs should be flush with the wall and so designed that no mechanical damage to them can result from the moving of furniture or other heavy equipment.
- (h) Where a building has a single staircase, it shall terminate at the ground floor level, and the access to the basement shall be by a separate staircase. Where the building is served by more than one staircase, one of the staircases may lead to the basement level by either a ventilated lobby or a cut-off screen wall without opening, having a fire resistance of not less than 2 hours with discharge point at two different ends or through enclosures. It shall also be cut-off from the basement area at various basement levels by a protected and ventilated lobby/lobbies.

(5) FIRE ESCAPE OR EXTERNAL STAIRS :-

Multi-storied/high rise and special buildings shall be provided with fire escape stairs, which will be free of F.S.I., and they should conform to the following :-

- (a) They shall not be taken into account in calculating the evacuation time of a building.
- (b) All of them shall be directly connected to the ground.
- (c) Entrance to them shall be separate and remote from the internal stair-case.
- (d) Routes to the fire escape shall be free of obstruction at all times, except for a doorway leading to the fire escape, which shall have the required fire resistance.
- (e) They shall be constructed of non-combustible materials.
- (f) They shall have a straight flight not less than 75 cm. wide with 15 cm. treads and risers. not more than 19 cm. The number of risers shall be limited to 16 per flight.
- (g) They shall be provided with handrails at a height not less than 90 cm. above the tread.

(6) RAMP :-

- (a) All the requirements of sub regulation (4) of this Regulation shall apply to any ramps as they apply to a staircase.
- (b) Ramps shall lead directly to outside open spaces at ground level or courtyards or other safe places.
- (c) In a multistoried, high rise and special building, access to ramps from any floor shall be through a smoke-stop door.

(7) REFUGE AREA

- (a) In multi-storied and high-rise buildings, at least one refuge area shall be provided on the floor immediately above every 18 mts. of building height.
- (b) Such space should abut on external walls.
- (c) It shall have a minimum area of 1.5 sq. mts. and a minimum width of 0.75 mt.

4 STRUCTURAL SAFETY AND SERVICES
(1) STRUCTURAL DESIGN

The structural design of foundations, elements made of masonry, timber, plain concrete, reinforced concrete, pre-stressed concrete and structural steel shall conform to the provisions of part VI Structural Design Section-1 Loads, Section-2 Foundation, Section-3 Wood, Section-4 Masonry, Section-5 Concrete, Section-6 Steel, National Building Code of India, taking into consideration the Indian Standards and Guidelines for hazard safety as given below:

- a) For Earthquake Protection
 1. IS:1893-1984 "Criteria for Earthquake Resistant Design of Structures (Fourth Revision)"
 2. IS:13920-1993 "Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces - Code of Practice"
 3. IS:4326-1993 "Earthquake Resistant Design and Construction of Buildings - Code of Practice (Second Revision)"
 4. IS:13828-1993 "Improving Earthquake Resistance of Low Strength Masonry Buildings - Guidelines"
 5. IS:13827-1993 "Improving Earthquake Resistance of Earthen Buildings - Guidelines",
 6. IS:13935-1993 "Repair and Seismic Strengthening of Buildings - Guidelines"
 7. "Improving Earthquake Resistance of Buildings - Guideline", by Expert Group, Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1998.
- b) For Cyclone/Wind Storm Protection
 8. IS 875 (3)-1987 "Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures, Part 3, Wind Loads"
 9. "Improving Wind/Cyclone Resistance of Buildings - Guideline", by Expert Group, Government of India, Ministry of Urban Affairs & Employment, published by Building Materials and Technology Promotion Council, 1998.

Note: Wherever an Indian Standard including those referred in the National Building Code or the National Building Code is referred, the latest version of the same shall be followed.

- (1) In pursuance of the above, a certificate as indicated in Form-2(C) shall be submitted along with building plans/drawings and other building information schedule annexed thereto.

(2) QUALITY CONTROL REQUIREMENTS

- (i) The quality of all materials and workmanship shall conform to accepted standards and Indian Standard Specifications and Codes as included in Part V Building Materials and Part VII Constructional Practices and Safety, National Building Code of India.
- (ii) All borrow pits dug in the course of construction and repair of buildings, embankments etc. shall be deep and connected with each other in the formation of a drain directed towards the lowest level and properly stepped for discharge into a river,

stream, channel or drain, and no person shall create any isolated borrow pit which is likely to cause accumulation of water that may breed mosquitoes.

(iii) Alternative materials, method of design and construction and tests:-

The provisions of the Regulations are not intended to prevent the use of any material or method of design of construction not specifically prescribed in them provided any such alternative has been approved. Nothing of the provisions of these Regulations is intended to prevent the adoption or architectural planning and layout conceived as an integrated development scheme. The Competent authority may approve any such alternative if it conforms to the provisions of the relevant parts of the National Building Code, regarding material, design and construction, and the material, method, or work offered is, for the purpose intended, at least equivalent to that prescribed in these Regulations in quality, strength, compatibility, effectiveness, fire and water resistance, durability and safety.

(iv) All buildings shall be constructed on a quality control requirements.

(v) In case of existing building under construction based on approved building permission, structural safety requirements shall have to be observed. However, due to such structural work of strengthening/retrofitting if certain setbacks and margin get reduced, special permission may be granted on case to case basis.

5 BUILDING SERVICES

(a) **ELECTRICAL INSTALLATIONS:** The planning, design and installation of electrical installation, air-conditioning and heating work shall conform to the provisions of Part VIII Building Services. Section 2- Electrical Installations. Section 3-Air-conditioning and Heating, National Building Code of India.

(b) **LIFT:**

(a) **PLANNING AND DESIGN :**

The planning and design of lifts including their number, type and capacity depending on the occupancy of the building, the population on each floor based on the occupant load and the building height shall be in accordance with Section 5- Installation of Lifts and Escalators, National Building Code of India.

(b) **MAINTENANCE :**

(i) The lift installation should receive regular cleaning, lubrication adjustment and adequate servicing by authorised competent persons at such intervals as the type of equipment and frequency of service demand. In order that the lift installation is maintained at all times in a safe condition, a proper maintenance schedule shall be drawn up in consultation with the lift manufacturer and rigidly followed. A log book to record all items relating to general servicing and inspection shall be maintained. The electrical circuit diagram of the lift with the sequence of operation of different components and parts shall be kept readily available for reference by persons responsible for the maintenance and replacement, where necessary, to the satisfaction of the competent authority.

(ii) Any accident arising out of operation of maintenance of the lifts shall be duly reported to the competent authority.

CHAPTER - V**12 ACCESS FOR PHYSICALLY HANDICAPPED PERSONS****1 SCOPE**

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

2 ACCESS PATH / WALK WAY

Access path from the entry and surface parking to Building entrance shall be minimum of 1800mm wide having even surface without any steps. Slope if any, shall not have gradient greater than 5%. Selection of floor material shall be made suitably to attract or to guide visually impaired persons. (hereinafter referred to as "guiding floor material" as explained in Regulation No.28.16"). Finishes shall have a non-slip surface with a texture traversable by a wheel chair. Curbs wherever provided should blend to a common level.

3 PARKING

For parking of vehicles, the following provisions shall be made:

- a) Parking should be within 30.0 meters of the main entrance of the building.
- b) The width of parking bay shall be minimum 3.60 meters. Overall minimum dimensions shall be 3.60 meters x 4.80 meters
- c) The parking should have the international signage (as explained in Regulation No.16) painted on the ground and also on a sign post/board put near it.
- d) Required number of reserved parking spaces shall be as below

Spaces in Parking Lot	Required No.of Reserved Parking Space
1-25	1
26-50	2
51-75	3
76-100	4
101 and above	5 plus 1 per 25 above 100

4 APPROACH

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

5 RAMP

- (a) Surfaces of ramp and landing shall be finished with non-slip material to enter the building.
- (b) Minimum width of ramp shall be 1200 mm
- (c) Maximum gradient of 1:12.

- (d) Inclined stretch of a ramp shall not exceed 9.0 meters having handrails at a height of 850 mm - 900 mm on both sides extending 300 mm beyond top and bottom of the ramp.
- (e) Minimum gap from the adjacent wall to the handrail shall be 50 mm

6 STEPS AND STAIRS

- (a) Uniform risers : 150 mm and treads : 300 mm
- (b) The steps should have an unobstructed width of at least 1200 mm
- (c) The landing should be at least 1200 mm long, clear of any door swing
- (d) Stair edges should have bright contrasting colours : 50 mm minimum
- (e) The maximum height of flight between landing to be 1200 mm
- (f) Stairs should have continuous handrails on both sides including the wall (if any) at a height of 850 mm - 900 mm
- (g) Nosing to be avoided

7 ENTRANCE LANDING

Entrance landing shall be provided adjacent to ramp with the minimum dimension of 1800 mm x 2000 mm. The entrance landing that adjoin the top end of a slope shall be provided with guiding floor material. Landing shall have a non-slip surface with a textured finish. Curbs wherever provided should blend to a common level.

8 CORRIDORS

- (a) Should have an unobstructed minimum width of 1500 mm
- (b) All protruding objects more than 100 mm from the wall to be placed either in a niche or above 2100 mm from the floor
- (c) Guiding floor material shall be provided

9 DOORS

- (a) Minimum clear opening of the door shall be 900 mm and it shall not be provided with a step that obstructs the passage of a wheel chair user.
- (b) Threshold shall not be more than 12 mm
- (c) Doors should not open into corridors
- (d) A distance of 450 mm should be provided beyond the leading edge of the door
- (e) Should be fitted with lever action locks and D-handles of circular section. Knob handles should be avoided.
- (f) Kick plates are recommended 300 mm from bottom

10 LIFTS

- (a) Wherever lift is required as per bye-laws, provision of at least one lift shall be made for the wheel chair user with the following minimum cage dimensions of
 - Clear internal depth : 1100 mm
 - Clear internal width : 2000 mm
 - Clear door width : 900 mm
- (b) A hand rail not less than 600 mm long at 1000 mm above floor level shall be fixed adjacent to the control panel.

- (c) The lift lobby shall be of an inside measurement of 1800 mm x 1800 mm or more.
- (d) The time of an automatically closing door should be minimum 5 seconds and the closing speed should not exceed 0.25 m/sec.
- (e) The interior of the cage shall be provided with a device that audibly indicates the floor the cage has reached and indicates that the door of the cage is either open or closed.

11 TOILETS

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

- a) The minimum size shall be 1500 mm x 1800 mm
- b) Minimum clear opening of the door shall be 900 mm and the door shall be swing out.
- c) Suitable arrangement of vertical / horizontal hand rails with 50 mm clearance from wall shall be made in the toilet.
- d) The top of the W.C seat shall be 500 mm from the floor.
- e) Should have slip resistant flooring.
- f) Wash basin shall have a knee space of at least 760 mm wide by 200 mm deep by 650 mm - 680 mm height with lever type handle.
- g) Shall be provided with a switch that activates an emergency alarm.

12 DRINKING WATER

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

13 SERVICE AND INFORMATION COUNTERS

Public dealing counters and writing surfaces should not be more than 800 mm from the floor, with a minimum clear knee space of 650 mm - 680 mm height and 280 mm - 300 mm deep.

14 RELAXATION

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

15. CONTROLS

Window lever and electrical control should be maximum in the range of 450 mm to 1200 mm from the floor.

16 EXPLANATORY NOTES

(a) GUIDING / WARNING FLOOR MATERIAL

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

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

(b) HANDRAILS

- a) Should be circular in section with a diameter of 40 mm - 45 mm
- b) At least 45 mm clear of the surface to which they are attached.
- c) At the height of 850 mm - 900 mm from the floor
- d) Should extend by atleast 300 mm beyond the head and foot of the flight and ramp and should be grouted in the ground.
- e) Should be of contrasting colour.

(c) PROPER SIGNAGE

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

There should be directional signs guiding handicapped people to the various facilities. Signs should be mounted between 1400 mm and 1600 mm from the floor level and should be designed and located so that they are easily legible by using suitable letter size (not less than 20 mm high). For visually impaired persons information board in Braille should be installed on the wall at a suitable height and it should be possible to approach them closely. To ensure safe walking there should not be any protruding sign, which creates obstruction in walking. Public Address System may also be provided in busy public areas.

The symbols /information should be in contrasting colour and properly illuminated because people with limited vision may be able to differentiate amongst primary

colours. International symbol mark for wheel chair as shown below be installed at the lift, toilet, staircase, parking areas etc. that have been provided for the handicapped.

(d) WHEEL CHAIR

Chair used by disabled people for mobility. The standard size of wheel chair shall be taken as 1050 mm x 750 mm.

CHAPTER - VI

13 PARKING**1 Minimum parking space**

Off-street parking spaces for vehicles shall be provided for every new building constructed for the first use or when the use of old building is changed to any of the uses mentioned in the table below:

TABLE FOR MINIMUM OFF STREET PARKING SPACES:

Sr. No	Type of use	Parking space Required	Remarks
1	Residential (Flats/Apartments)	15% of maximum permissible F.S.I	(1) Dwelling units Above 80 Sq. Mts. built up area 50% of the total parking space requirement shall be reserved for cars. (2) Upto 80 Sq. Mts. built up area 25% of the total parking space requirements shall be reserved for Cars. (3) 10% of the total parking space requirements shall be reserved for visitors at ground level.
2	Cinema theatre, public assembly hall auditorium, stadium etc.	1 Sq Mts. per seat	50% of the total parking space requirements shall be reserved for Cars.
3	Industrial	10% of Building Unit	50% of the total parking space requirements shall be reserved for Cars.
4	Commercial and business establishments including business office, bank, hotel, guest house, lodge, eating house, restaurant, institutional building etc. and Health facilities including Hospitals & Nursing Homes etc.	30% of maximum permissible F.S.I Note :(1) The parking space so required shall be provided excluding required marginal space and Built up area with solid plinth subject to other regulation (2) 20% of the parking space required at the ground level shall be exclusively provided for visitors.	50% of the total parking space requirements shall be reserved for Cars.
5	Community buildings such as community hall/ marriage hall/ community wadi/ recreational club/ and religious building, party plot, club house etc.	50% of Building Unit..	50% of the total parking space requirements shall be reserved for Cars.

Sr. No	Type of use	Parking space Required	Remarks
6	a) Primary schools. b) Secondary and higher secondary schools (c) Colleges and coaching classes.	20 Sq. Mts. for every 100 students. 50 Sq.Mts. for every 100 students 70 Sq. Mts. for every 100 students	For computing number of students 0.75 sq. mts. floor area is equal to 1 (one) student.
7	Special building for uncommon uses : viz., grain market, timber market, iron market, agricultural market, and such other wholesale Trade.	30% of maximum permissible F.S.I	50% of the total parking space requirement shall be reserved for heavy motor vehicles.

NOTE:

(1) Building Units/Plots abuts on 9.00 Mts. or more width road Parking shall be Provided as under.

For Ground floor Built-up Area without hollow plinth the Parking shall be Provided as per Commercial Standards and for other floors Built-up Area Parking shall be Provided as per Regulations.

(2) Above space shall be provided in addition to adequate vehicular access to the street.

(3) In a marginal space of 3.0 mts or more may be allowed for parking if it forms part of parking layout as required under 19.2.

(4) Parking requirement shall be calculated on the basis of maximum permissible F.S.I.

(5) In cases where more parking space is requested, the Competent Authority may grant the request for providing parking in cellar or at upper floors with specific conditions to take care of genuine requirements.

Parking reserved for the visitors shall be provided on ground level only.

2 THE PARKING LAYOUT SHALL FULFILL THE FOLLOWING CONDITIONS

(1) The minimum width of access to street from parking space shall be 3.0 meters.

(2) The Car parking space shall have two independent accesses leading street if its area capacity exceeds 300 Sq.Mts.

Provided that one such access may be permitted if its minimum width is 6 meters.

(3) If the parking space is not provided at street level the gradient of ramp leading to parking space shall not be more than 1:7 i.e. the vertical rise shall not exceed more than 1 Mt. over a horizontal distance of 7 meters.

(4) Clear head way of 2.4 meters, shall be provided on every access leading to parking space and at any point in parking space.

(5) The general arrangement of parking layout shall be in conformity with the general instruction as may be issued by the Competent Authority from time to time.

(6) Width of ramp to the cellar may be 2.00 mts. Provided cellar is exclusively used as parking space for two wheeler vehicle only.

14 CONTROL OF SIGNS(HOARDINGS) AND OUTDOOR DISPLAY STRUCTURES AND PAGING TOWER AND TELEPHONE TOWER AND OUTDOOR DISPLAY STRUCTURES

1 PERMISSION

Only authorised signs (Hoarding) paging tower and telephone towers will be permitted.

2 DESIGN AND SIZE

Every hoarding shall be designed so as to withstand the wind, dead, seismic and other loads and other structural requirements in accordance with the NBC.

In the case of shopping units in commercial areas and/or residential-cum-commercial buildings, the display boards shall be at the same height above the shopping arcade and shall ordinarily be 45.5 cms. to 61 cms. in height. The placement and size of the boards shall form a part of the building permission and no change therein shall be permitted nor shall any additional boards be allowed to be displayed.

Size of the hording along the various roads shall be permitted as prescribed by competent authority.

3 GENERAL RESTRICTIONS

- a) No ground sign shall be erected to a height according to local condition and requirements. Lighting, reflections may extend beyond the top of face of the sign.
- b) Every ground sign shall firmly supported and anchored to the ground. Supports and anchors shall be of treated timber in accordance with good practice or metal treated for corrosion resistance or masonry or concrete.
- c) No ground sign shall be erected so as to obstruct from access to or egress from any building and;
- d) Distance from the junction of road:- Sign or hoarding along roads shall be permitted in such a way that it is not obstructing the vision required for safe traffic movements.
- e) Any hoarding which in the opinion of the Authority is likely to be confused with unauthorised traffic sign or signal shall not be permitted.
- f) Any hoarding containing the words "Stop", "Look", "Danger" or other similar words that might mislead or confuse the travellers shall not be permitted.
- g) No hoarding shall be permitted in the open margin space of the building.
- h) All permission for hording shall be given only after getting certificate from registered structural engineer for the stability, safety of hording to be erected.

4 WALL SIGNS

Following provisions shall apply for wall signs.

- a) Dimensions: The total area of the sign shall not exceed 25 percent of the total area of the facade on which the sign is erected. The facade of the building shall be subdivided into blocks of uniform height and the area of the sign erected on particular block shall not exceed 10 percent of the area of that block.
- b) Projection: No wall sign shall extend above the top of the wall or beyond the ends of the wall to which it is attached. At any place where pedestrians may pass along a wall, any wall sign attached there to shall not project more than 7.5 cms. there from within a height of 2.5 Mts. measured from the level of such place.

- c) **Support & Attachment:** Every wall sign shall be securely attached to walls, wooden blocks or anchorage with wood used in connection with screws, staples or nails shall not be considered proper anchorage, except in the case of wall signs attached to walls of wood.
- d) **Reflectors:** Lighting reflectors may project 2.4 Mts. beyond the face of the wall provided such reflectors are at least 4 m above the footpath level, but in no case shall such reflectors project beyond a vertical plane one meter inside the kerb line.

5 PROJECTING SIGNS

No projecting sign or any part of its supports or frame work shall project more than 2 meters beyond the main face of the building to which such sign is attached. At every place where pedestrians may pass underneath a projecting sign, an over-head clearance of at least 2.5 Mts. shall be maintained.

Comprehensive Sign Design: Particularly in the case of an existing structure where because of the code amendment new signage is likely to cover less of the building facade than previously, it is hoped that Comprehensive Sign Designs will encourage the rehabilitation of the building front itself as well as the careful design of the sign that goes on it.

6 HISTORIC BUILDINGS

The Competent Authority is empowered to deny the permission on the ground of ambiance of heritage buildings and precincts.

7 DEPOSIT AND FEES

- 1) The fees for erection and maintenance of the hoarding shall be charged as decided by Competent Authority from time to time.
- 2) The fees for hoarding shall be paid by the applicant in advance, for the calendar year or part thereof.

8 ELECOMMUNICATION INFRASTRUCTURE (PAGING, CELLULAR MOBILES, 'V' SAT., MTNL ETC.)

- a) Following provisions shall apply for telecommunication infrastructure.
- I. Location : The Telecommunication Infrastructure shall be either placed on the building roof tops or on the ground or open space within the premises subject to other regulations.
 - II. Type of structure :
 - (i) Steel fabricated tower or antennae's on M.S. pole.
 - (ii) Pre-fabricated shelters of fibre glass or P.V.C. on the building roof top/terrace for equipment.
 - (iii) Masonry Structure/ Shelter on the ground for equipment.
 - (iv) D.G. Set with sound proof cover to reduce the noise level.
 - III. Requirement:(i) Every applicant has to obtain/ procure the necessary permission from the "Standing Advisory Committee on Radio Frequency Allocation" (SACFA) issued by Ministry of Telecommunications.
 - (ii) Every applicant will have to produce the structural stability certificate from the registered structural engineer which shall be the liability of both parties
 - (iii) Applicant have to produce/ submit plans of structure to be erected.
 - IV. Projection: No Pager and/or Telephone Tower shall project beyond the existing building line of the building on which it is erected in any direction.

- b) **DEPOSIT AND FEES :** The fees for erection and maintenance of the hoarding shall be charged as decided by Competent Authority from time to time.

CHAPTER -VII

15 CONTROL OF AIR AND WATER POLLUTION

- 1 No industrial effluent shall be disposed or exposed so as to cause nuisance and endanger to public health.
- 2 Without prejudice to the generality of the above provisions, the Competent Authority may stipulate certain conditions or measures to control the air borne emissions and liquid effluents from industrial units. These measures shall be stipulated as conditions of the development permission.
- 3 Industries in the special industrial zone which emit liquid and gaseous effluents shall not be allowed to emit such effluent unless they are purified and rendered harmless from the public health point of view by provision of purification plants, as may be prescribed by the Competent Authority and/or the Gujarat Pollution Control Board.
- 4 Controls as prescribed from time to time by the pollution control board / Competent Authority shall be applicable to all development and redevelopment.

16 CONTROL OF DRAINS, SEWERS, DRAINAGE AND SEWAGE WORKS

Regulations for regulating the construction maintenance and control of drains, sewers, drainage and sewage works of any description within SEZ Area.

1 DEFINITIONS:

In these regulations unless the content specifically indicates otherwise, the meaning of the terms used shall be as under:

- a) "Sewer System" shall mean the sewage disposal system.
- b) "Engineer" shall mean the Engineer of Authority or the authorised person or its deputy or representative duly authorised from time to time to act on his behalf.
- c) "Person" shall mean any individual firm, company, association, society, corporation or group.
- d) "Sewer" shall mean a pipe, or conduct or other construction provided for carrying sewage.
- e) "Building Sewer" shall mean the sewer under the control of the property owner and extending from the building to the first inspection chamber or manhole.
- f) "Public sewer" shall mean a sewer in which all owners of abutting properties may discharge, and which is controlled by the public body.
- g) "Sanitary Sewer" shall mean a sewer which carries sewage and to which storm, surface and ground water are not admitted.
- h) "Storm Sewer" shall mean sewer which carries storm and surface water and drainage but excludes sewage and industrial wastes, other than unpolluted cooling water.
- i) "Combined Sewer" shall mean a sewer receiving both sewage and surface run off.
- j) "Sewage" shall mean a combination of the waters carried from residences, business buildings, institutions and industrial establishments, to go there with such ground surface and storm waters as may be present.
- k) "Industrial waters" shall mean the liquid wastes from industrial manufacturing process, trade, business or form of any development, recovery or processing operation, as distinct from sanitary sewage.
- l) "Garbage" shall mean solid wastes from the domestic and commercial preparation, cooking and dispensing of food and from the handling storage, and sale of produce.

- m) "Properly Shredded Garbage" shall mean the waste from the preparation, cooking and dispensing of food that have been shredded to such a degree that all particles will be of 1 cm. carried freely under the flow conditions normally prevailing in sewers with no particle greater than 1 cm in any dimension.
- n) "Sewage Treatment Plant" shall mean any arrangement or devices and structures used for treating sewage.
- o) "Sewage works" shall mean all facilities for collecting, pumping, treating and dispensing of sewage.
- p) "Water Course" shall mean a channel in which a flow of water occurs either continuously or intermittently.
- q) "Natural Outlet" shall mean a channel in which a flow of ground water occurs continuously.
- r) "Sludge" shall mean any discharge of water sewage industrial waste which in concentration of any given constituent or in quantity of flow exceeds for any duration longer than 15 minutes, five times the average 24 hour concentration or flow during normal operation.
- s) "pH" shall mean the logarithm of the reciprocal of the weight of hydrogenous in grams per litre of solution as determined by procedures outlined in standard methods.
- t) "Biochemical Oxygen Demand" (abbreviated as B.O.D.) shall mean the quantity of oxygen utilised in the biochemical oxidation of organic matter in five days at 20 o c expressed in milligrams per liter, as determined by procedures outlined in standard methods.
- u) "Suspended Solids" shall mean solids that either float on the surface or are in suspension in water sewage or other liquids or which are removable by a laboratory filtering device quantitative determination shall be done in accordance with methods.
- v) "Gallon" shall mean Imperial Gallon.
- w) "Control Manhole" shall be the manhole so designated for the express purpose of collecting waste effluent samples and facilitating observation and measurement of waste as necessary from a property. It shall be the manhole at the junction of the building sewer with the public sewer or the nearest manhole on the public sewer down stream of the junction of the building sewer with the public sewer as may be decided by the Engineer.
- x) "Standard Methods" shall mean the examination and analytical procedures set forth in the most recent edition of Standard Methods' for the examination of water, sewage and Industrial wastes published jointly by the American Public Health Association, the American Water Works Association and the Water Pollution Control Federation. However, the use of identical analytical procedure outlined by the World Health Organisation or the Indian Standards Institution of the Government of India, from time to time, whenever such procedures exist will be permitted.

2 REGULATIONS

- a) It shall be unlawful for any person to place, deposit, or permit to be deposited in any incinerate manner on public or private property within the jurisdiction of Competent Authority any human or animal excrement, garbage or other objectionable waste.
- b) It shall be unlawful for any person to discharge to any natural outlet or any where, within the area under the jurisdiction of Competent Authority any sewage or other polluted waters except where suitable treatment has been provided in accordance with subsequent provisions of these regulations.
- c) For permission to discharge into the sewage system from establishments producing industrial wastes, the owner or his authorised agent shall make application on a special form furnished by the Competent Authority as the case may be. The permit application shall be supplemented by any plans, specifications, sample test reports or other information considered pertinent in the judgement of the Engineer. An inspection fee of Rs.100/- for an industrial building sewer permit shall be paid at the time application is filed. All industrial and trade establishments existing and discharging industrial wastes into the sewer system at

the time of enactment of these regulations shall also require permission to discharge into the sewer under these regulations.

- d) No person shall discharge or cause to be discharged any storm water surface water, ground water, roof run-off, or subsurface drainage to any sanitary sewer. uncontaminated cooling water or unpolluted industrial process water be permitted to be discharged to any sanitary sewer by the Engineer if storm sewer is not available.
- e) Storm water and all other unpolluted drainage shall be discharged to such sewer as are specifically designated as storm sewers or to a natural outlet approved by the Engineer. Industrial cooling water or unpolluted process waters may be discharged with the prior approval of the Engineer to a storm sewer or natural outlet.
- f) Grease, oil and sand interceptors of approved type and capacity shall be provided when in the opinion of the Engineer, they are necessary for the proper handling of liquid wastes containing grease in excessive amounts or any inflammable wastes, sand or other harmful ingredients, such interceptors shall be so located as to be readily accessible for cleaning and inspection.
- g) No storage rooms where acids, cyanide, cyanogen compound or other dangerous substances are stored, shall be connected directly to the public sewers or to any natural outlet, curing holding pit, or other approved arrangement may be required to be provided so that accidental discharge can be caught and disposed off in a safe manner.
- h) All permits granted under Regulation No.24.2(3) shall be valid for a period of 3 years and it shall be incumbent on the owner or his authorised agent to make an application for renewal with payment of renewal fee of Rs.75/- three months before the 'expiry' of the permit period furnishing sample test reports and any other information considered pertinent in the judgment of the Engineer.
- i) No person shall discharge or cause to be discharged any of the following described kinds of sewage, industrial or factory waste into any sewer or body of water within or entering the area;
 - i) Any liquid or vapor having a temperature higher than 111 °F(45 ° C).
 - ii) Any water or waste having a pH Lower than 5.5 or higher than 9.5.
 - iii) Any water containing fats, wax grease, tars or oils whether emulsified or not, in excess of 100 MG/L or containing substance which may solidify or become viscous at temperatures between 32 of and 150 of (O ° C and 65 ° C).
 - iv) Any petroleum products, fuel oil, calcium carbide benzene, haphane, cleaning solvents or other inflammable or explosive materials in liquid, or gaseous form and having a flash point lower then 187 of.
 - v) Any solid or viscous substances in quantities or of such size or specific gravity as would be capable of causing obstruction to the flow in sewers or other interference with the proper operation of sewage work such as, but not limited to, ashes, cinders, sand stone dust, mud, straw, shaving metal, glass, rags, feathers, star, plastics, wood fuller's earth, lime slurries and residues, pulp and paper mill wastes, ungrounded garbage, paper dishes, cups, food containers, etc. either whole or grounded by garbage grinders.
 - vi) Any paunch manure or intestinal contents from animal, grease oil, hooves, toenails, bees, bristles, whole blood, fleshing and har resulting from slaughtering, tanning and other operations, which may cause difficulty to the sewer system.
 - vii) Any garbage that has not been properly shredded as defined in definition 24.1 (13). The installation and operation of any garbage grinder equipped with a motor of 3/4 H.P.(0.76 H.P.) metric or greater shall be subject to review and approval of the engineer.

- viii) Any soluble substances in such concentration as to increase the viscosity of the water or greater than 1:10 specific viscosity.
- ix) Any waters or water containing toxic, poisonous, solids, liquid or gases in sufficient quantity either singly or by interaction with other wastes likely to injure or interfere with any sewage treatment process, constitute a hazard to human or animals, create a public nuisance or create any hazard in the receiving waters of the sewage treatment plant, including but not limited to:
- Cyanides in excess of 2 Mg./L as CN;
 - Haxavelent chromium in excess of 3 Mg./L as GO;
 - total iron excess of MG./L as Fe.
- x) Any waters or wastes containing constituents such as but not limited to the following objectionable limit which in the opinion of the Engineer are likely to interfere with sewage treatment or exceed limits after treatment of the sewage to meet the requirements of the State, or other public or local authorities for discharge to the receiving water:

Copper	UPTO	3Mg/L
Zinc	UPTO	15Mg/L
Lead	UPTO	1Mg/L
Nickel	UPTO	2Mg/L

- xi) Any waters or waste containing phenols or other tastes or odor producing substances in concentrations exceeding 0.005 Mg/L.
- xii) Any radio active waste should not exceed following limits:

Radio active material:

i) Alpha	-7	Emitters Max	1-0 mc/ml
ii) Beta	-6	Emitters Max	1-0 mc/ml

- xiii) Any malodorous gases and acetylene generation sludge.
- xiv) Any water or waste containing sulfides, sulphurdioxide, nitrousoxide or any of the halogens exceeding 10 Mg/L in concentration.
- xv) Any water or waste containing sulphates in excess of 1000 Mg/L concentration.
- xvi) Any water or waste having B.O.D. more than 300 Mg/L.
- xvii) Any water or waste having average suspended solids more than 600 Mg/L.
- xviii) Any water or waste having dissolved solids in excess of 2100 Mg/L concentration.
- xix) Any water or waste containing following elements in excess of respective proportion mentioned against them:

Parameters	Standard-Mg/Lit.
Chloride (as Cl.)max	600
Fluoride	15
Ammonia Nitrogen(as N)max.	50

Boron(as B) max	2
% Sodium max	60
Free Ammonia (as NH)	5
Pesticide	Absent.
Arsenic(as As)	0.2
Mercury (as Hg)	0.01
Cadmium (as cd)	2.0

- xx) No person shall discharge or caused to be discharged any of the following kinds of sewerage, industrial or factory waste into any river or creeks, exceeding respective levels as shown in Appendix attached, at the end of this chapter.
- j) No person shall discharge or caused to be discharged substances, materials, waters or wastes, if it appears likely in the opinion of the Engineer that such wastes are not amenable to satisfactory treatment or can harm either sewers, sewage treatment process or equipment have an adverse effect on the reviving stream or can otherwise endanger life, limb, public property, or constitute a nuisance. In forming his opinion as to the acceptability of such wastes the Engineer will give consideration to such factors as the quantities of wastes in relation to flows and velocities in the sewers, materials of construction of the sewers, nature of the sewage treatment process, degree of treatability of wastes and other pertinent factors.
- k) At such time as the sewage works are not overloaded, the engineer may at his discretion permit greater degree of pollution than set out in this regulation No.9(xvii) but in no case exceeding the following:
- a) B.O.D. of 600 Mg/L. and
 - b) Average suspended solids 1200 Mg/L.
- l) The permission mentioned in regulation will be given only upon payment of surcharge in addition to the usual sewer charges, and it will be liable to the withdrawn on 3 months notice. The rates for surcharge will be decided by the Authority from time to time.
- m) If any waters of wastes which are discharged, or are proposed to be discharged to the public sewers, contain the substances or process characteristics enumerated in these regulations and which in the judgment of the Engineer may have a deleterious effect upon the sewage works, processes, equipment or reviving waters, or which otherwise create a hazard to life or constitute a public nuisance, the Engineer may:
- a) reject the wastes.
 - b) require pre-treatment in a private waste treatment system to an acceptable condition for discharge to the public sewers.
 - c) require provision of flow equalizing facilities for control over the quantities and rates of discharge to avoid unusual volumes or flow or concentration of waste constituting slugs as defined.
 - d) require payment of surcharge as detailed in regulation 12 above.
- n) The owner shall operate and maintain continuously and effectively at his expense the private waste treatment of flow equalization system in a sanitary and safe manner at all times.
- o) When required by the Engineer, the owner of any property serviced by a building sewer carrying industrial wastes shall install a suitable control manhole together with such

necessary appurtenances in the building sewer to facilitate observation sampling and measurement of the wastes. Such manhole when required shall be accessible at all times. In a default of the owner to install and maintain a control manhole and any required appurtenance within 1 month of a written notice from the Engineer to do so, the latter shall be entitled to estimate the quality and quantity in any manner or method practicable for computing the amount of the surcharge and the presence of the objectionable constituents laid down in Regulation No.9, 10 and 11 above.

- p) In the event that no special manhole has been required, the control manhole shall be connect to the nearest down stream manhole in the public sewer to the point at which the building sewer is connected.
- q) Sampling shall be carried out to reflect the effect of constituents upon the sewage works and to determine the existence of hazards to life, limb and property. The particular analysis involved will at the discretion of Engineer be done either on basis of a 24 hours composite of all discharge of a property or as a grade sample or samples. Normally B.O.D. and suspended solids analysis are determined from 24 hours composites whereas pH is determined by grade samplings.
- r) All tests and analysis of the characteristics of water and wastes to which reference is made in these Regulations shall be determined in accordance with Standard Methods as mentioned in definition 24.1(24) and shall be determined at the said control manhole in the presence of representatives of all parties concerned, and tested at a Municipal or any other laboratory approved by the Engineer.
- s) The Engineer may at any time before or after issue of permit or grant of connection, run additional tests of the sewage or wastes being discharged by any trade or industry over such period as it may deem necessary, cost of such test shall be borne by the Competent Authority.
- t) In the event of taste showing greater degree of pollution than permissible under these Regulation , the surcharge, if any to be paid, shall be computed on the basis of the latest test and shall be levied from the billing period in which the tests are carried out. If any such testing by the Competent Authority shall show reduced degree of pollution in the wastes sufficient to exempt from payment of surcharge the same shall become effective from the next billing period.
- u) If the owner is of the opinion that for any reason the nature of the sewage presently being discharged into the sewer has a substantially lessened degree of pollution than as shown by prior tests, he may request the Competent Authority to make new test more than once in each billing period to be made at his expense. Such test will be taken by the Engineer at his discretion within three months from the date of application. If the Engineer is satisfied that such tests were made when the plant was operating under normal conditions, the results of the latest tests shall be used in computing or exempting from the surcharge.
- v) The Engineer or other duly authorized employees of the Competent Authority shall be permitted to enter all properties for the purposes of inspection, observations of these regulations and having a direct bearing on the nature and source of discharge.
- w) Any person found to be violating any provision of these regulations shall be served by the Competent Authority with written notice stating the violation and providing a reasonable time limit not less than one month for the satisfactory correction thereof. The offender shall within the period of time stated in such notice, permanently cease all violations.
- x) Any person who shall continue any violation beyond the time limit, provided for in these regulations, shall be liable for prosecution and be punished with a fine which may extend to Rs.500/- for each violation and in case of a continuing breach to Rs.50/- per day after the date of first conviction.
- y) Any person violating any of the provisions of these regulations shall become liable to the Competent Authority for any expenses, loss or damage occasioned to the Competent

Authority by the reason of such violation and shall be liable to suspension, revocation or cancellation, if any permissions were granted under the regulations.

- z) Should any court of competent jurisdiction declare any provision of this regulation ultravires then the decision shall effect only such provision so declared to be ultravires and shall not effect any other provisions.
- aa) The above mentioned Regulations shall be subject to modification from time to time as required by Gujarat Pollution Control Board and Competent Authority.

3 SEPTIC TANK

(i) Location and sub-soil dispersion.-A sub-soil dispersion system shall not be closer than 12 mts. to any source of drinking water, such as a well, to mitigate the possibility of bacterial pollution of water supply. It shall also be as far removed from the nearest habitable building is economically feasible but not closer than 2 mts. to avoid damage to the structure.

(ii) Dimensions etc.

(iii)

- (a) Septic tank shall have a minimum inner width of 75 cm. a minimum depth of minimum 2 meter below the ground level and a per capita minimum liquid capacity of 85 liters. The length of the tanks shall be least twice the width.
- (b) Septic tanks may be constructed of brick work, stone masonry, concrete or other suitable material as approved by the competent authority..
- (c) Under no circumstances should effluent from a septic tank or allowed into an open channel drain or body of water without adequate treatment.
- (d) The minimum normal diameter of the pipe shall be 100 mm. Further at junction of pipes in manholes, the direction of flow from a branch connection should not make an angle exceeding 45 with the direction of flow in the main pipe.
- (e) The gradients of land-drains, under-drainage as well as the bottom of dispersion trenches and soakwells should be between 1:300 and 1:1400.
- (f) Every septic tank shall be provided with a ventilating pipe of at least 50 mm. diameter. The top of the pipe shall be provided with a suitable cage of mosquito proof wire mesh. The ventilating pipe shall extend to a height, which would cause no smell or nuisance to any building in the area. Generally, the ventilating pipe should extend to a high of about 2 mts. above the septic tank building when it is located closer than 15 mts.
- (g) When the disposal of a septic tank effluent is to a seepage pit, the seepage pit may be of sectional dimension of 90 cm. and not less than 100 cm. in depth below the inner level of the inlet pipe. The pit may be lined with stone, brick and concrete blocks with dry open joint, which should be backed with at least 7.5 cm. of clean coarse aggregate. The lining above the inlet level should be narrowed to reduce the size of the R.C.C. cover slabs. Where no lining is used, Specially near trees the entitle pit should be filled with loose stones. A masonry ring should to construct at the top of the pit to prevent damage by flooding of the pit by surface run off. The inlet pipe should be taken down to a depth of 90 cm. from the top an anti Mosquito Measure.
- (h) When the disposal of septic tank effluent is to a dispersion trench, the dispersion trench shall be 50 to 100 cm. wide excavated to a slight gradient and shall be provided with a layer of shed gravel or crushed stones 15 to 25 cm. deep. Open joined pipes placed inside the trench shall be made of unglazed earthenware clay or concrete and shall have a minimum internal diameter or 70 to 100 mm. Each dispersion trench should not be longer than 30 mts. and trenches should not be placed closer than 1.8 mts. to each other.

- 4 The above mentioned Regulations shall be subject to modification form time to time as required by Gujarat Pollution Control Board /Competent Authority

APPENDIX -I**(See Regulation No.16.2 (xx))****PROPOSED STANDARDS FOR DISPOSAL OF EFFLUENT INTO RIVER OR NEARBY CREEKS:**

PARAMETER	MAXIMUM PERMISSIBLE CONCENTRATION.
Temperature 0° C max.	40° C
pH value.	5.5 - 9.0
Colour.	100 Units.
Total suspended solids max.	100 Mg/L
Oil & Grease max.	10"
Biochemical Oxygen Demand(5 days at 20° C) max	30"
Chemical Oxygen Demand max.	100"
Ammonical Nitrogen (as N) max.	50"
Free Ammonia (as NH ³) max.	5"
Total Kjeldahl Nitrogen(as N) max.	100"
Total Residual Chlorine max.	1"
Phenolic Compounds max.	1"
Total dissolved solids(inorganic)max.	2100"
Cyanides (as CN) max.	0.2"
Fluorides (Total as F) max.	1.5"
Phosphate (as P) max.	5"
Sulphides (as S) max.	2"
Boron (as B)max.	2"
Arsenic (as Aso) max.	0.2"
Mercury (as Hg) max.	0.01"
Lead (as PB) max.	0.1"
Cadmium (as CD) max.	1.0"
Hexavalent Chromium (as Cr+6) max.	0.1"
Total Chromium (as Cr)max.	2"
Copper (as Cu) max.	3"
Zinc (as Zn) max.	5"
Selenium (as Se) max.	0.05"
Nickel (as Ni) max.	3"
Pesticides.	Absent.

17 TREE PLANTATION

While applying for development permission, at the rate of 1 tree for every 100 sq.mts of building unit, shall have to be shown on the site plan/layout plan.
The trees shall have to be guarded by the tree guards and shall be maintained.

18. APPEAL COMMITTEE

Any dispute arising from interpretation of the Development Control Regulations by the Development Committee shall be referred to the SEZ Development Authority.

APPENDIX - II**PROTECTION OF BUILDINGS STRUCTURES AND INFRASTRUCTURES IN HAZARD PRONE AREAS**

A. PROTECTION OF AREAS FROM EARTHQUAKES

- i. In those areas where there are no dangers of soil liquefaction or settlements or landslides, all building structures and infrastructures should be designed using the relevant Indian Standards as provided in the Building Regulations and the National Building Code
- ii. Soils subjected to liquefaction potential under earthquake shaking, can be improved by compaction to desired relative densities, so as to prevent the possibility of liquefaction.
- iii. Buildings and structures could be founded on deep bearing piles going to non-liquefiable dense layers.
- iv. Steep slopes can be made more stable by terracing and construction of retaining walls and breast walls, and by ensuring good drainage of water so that the saturation of the hill-slope is avoided.
- ii. Any other appropriate engineering intervention to save the building structures or infrastructure from the fury of the earthquake.

Note : The protective action given under (ii) to (v) will usually involve large amount of costs and should only be considered in the case of large and costly structures. For ordinary buildings the cost of improvement of the site will usually be uneconomical, hence bad sites should be excluded by Land Use Zoning.

B. PROTECTION FROM CYCLONIC WIND DAMAGE

- i. Buildings, structures and infrastructures in the cyclone prone areas should be designed according to the Indian Standards and Guidelines as provided in the Regulations and the National Building Code.
- ii. Light utility structures used for electrical transmission and distribution, and towers for communications, chimney stacks of industrial structures require special design considerations against the cyclonic wind pressures, suctions and uplifts.
- iii. In case the buildings, structures and infrastructures are founded on marine clay deposits it will be advisable to adopt either under-reamed piled foundations, or individual column footing with a reinforced concrete beam located at the level of the ground, or a continuous reinforced concrete strip footing.
- iv. Wherever, the top soil could become slushy due to flooding, the top layer of 30 cm depth of soil should not be considered for providing lateral stability
- v. In storm surge prone areas, it will be preferable to construct the community structures, like schools, cyclone shelters, etc. by raising the level of the ground protected by provision of retaining walls at sufficient distance away from the building, taken to such depth that no erosion takes place due to receding storm surge. Alternatively, construct

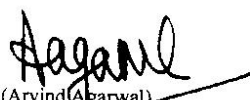
the community structures on stilts with no masonry or bracing upto the probable maximum surge level.

C. PROTECTION OF AREAS FROM FLOODS

This may require one or more of the following actions.

- i. Construction of embankments against the water spills from the source of flooding like rivers, large drain etc.
- ii. Construction of high enough embankments/bund around the planning area.
- iii. Raising the planning area above the high flood level.
- iv. Construction/improvement of drainage paths to effectively drain the water from the planning area.
- v. Construction of buildings and structures on deep foundations going below the depth of scour or on stilts with deep enough foundations under water.
- vi. Flood proofing works such as the following:
 - Providing Quick Drainage facility, consisting of
 - Revitalisation of secondary and primary drainage channels after establishing the drainage blockage points;
 - Provision of additional waterways;
 - Clearing of clogged cross drainage works;
 - Providing Human and Animal Shelters for population living within embankments in the form of raised platform or use of available high ground.
- vii. Anti-erosion actions in affected areas
- viii. Any other suitable measure.

- Note:
1. Similar protection methods could be used against flooding caused in cyclone prone areas by high intensity rains or by the storm surge.
 2. The concept of land zoning should be kept in mind for areas where protection works are taken up to decide inter-se priority for location of structures considering possibility of failure of protection works during extreme disaster events.


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