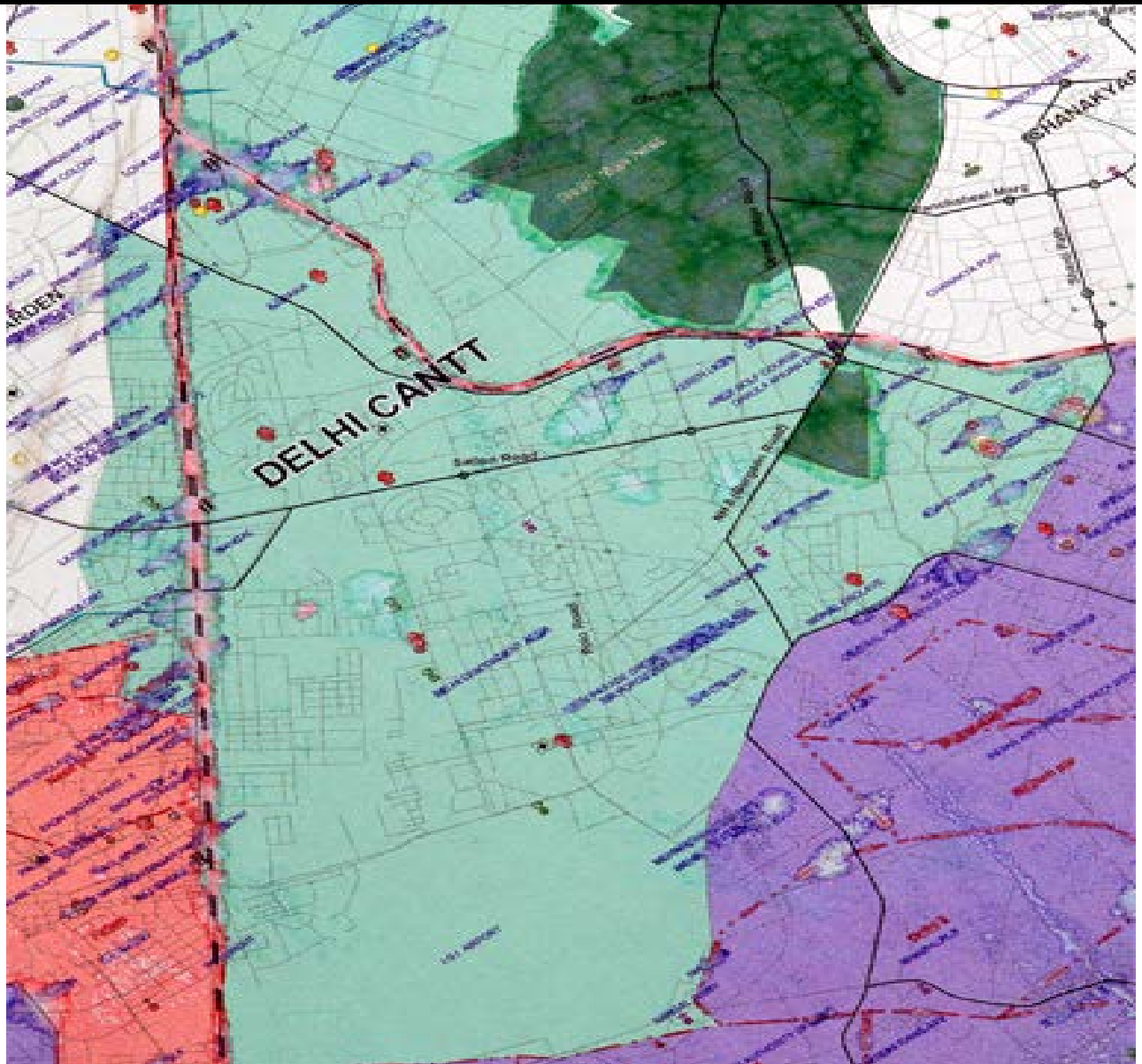


DRAFT BUILDING BYE-LAWS – 2016

For DELHI CANTONMENT AREA



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MODEL BUILDING BYELAWS - 2016, For DELHI CANTONMENT AREA PART I: ADMINISTRATION

1.0 Short title and commencement:

- 1.1 These bye-laws **will be** called the Cantonment (Building) Bye-laws, 2016.
- 1.2 They shall come into force on the date of their final publication in the Official Gazette by the Ministry of Defense, Government of India.

2.0 Definitions:

In these Bye-laws, unless the context otherwise requires:

- 2.1 "**Act**" means the Cantonments Act, 2006.
- 2.2 "**Addition to a building**" means addition to the cubic contents or to the floor area of a building;
- 2.3 "**Alteration of a building means**" (i) The sub-division of any room in such building so as to convert the same into two or more separate rooms, or

(ii) The conversion of any passage or space in such building into a room or rooms.
- 2.4 "**Applicant**" means whosoever desires to erect/re-erect a building in Cantonment Area by giving notice of sanction to the Competent Authority for approval of building plans.
- 2.5 "**Approved**" means approved by the Competent Authority as per Chapter 10 of the Cantonments Act, 2006.
- 2.6 "**Architect**" means any person who holds a valid registration with the Council of Architecture, India as per the provisions of the Architects Act 1972; such a person must have a minimum of two years experience in practice of architecture after obtaining the said registration.
- 2.7 "**Balcony**" means a horizontal projection including a hand rail, balustrade or a parapet to serve as sitting out place.
- 2.8 "**Basement**" means the lowest storey of a building below or partly below ground level or adjoining ground level.
- 2.9 "**Bazar**" or "**Market**" shall be deemed to be synonymous with the expression "Market" and is a place or area reserved or licensed for the erection of a group of shops or stalls;

- 2.10** “**Board**” shall mean a Cantonment Board constitute under Cantonments Act.
“**Building**” means a house, outhouse, stable, latrine, shed, hut or other roofed structure whether of masonry, brick, wood, mud, metal or other material, and any part thereof, and includes a well and a wall other than a boundary wall but does not include a tent or other portable and temporary shelter ;
- 2.11** “**Building Height**” means the vertical distance measured in the case of flat roof from the average level of the centre line of the adjoining street to the highest points of the building adjacent to the street wall; in the case of pitched roofs up to the point where the external surface of the outer wall intersects the finished surface of the sloping roof; and in the case of gable facing the road, the midpoint between the eaves level and the ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of taking heights, and if the building does not abut on a street the height shall be measured above the average level of the ground around and contiguous to the building;
- 2.12** “**Building Line**” means the line up to which the plinth of a building adjoining on a street or on an extension of a street or on a future street may lawfully extend and includes the line prescribed, if any, in any scheme;
- 2.13** “**Chajja**” or “**Sunshade**” means a sloping or horizontal structural overhang usually provided over openings on an external wall to provide protection from sun and rain;
- 2.14** “**Ceiling Height**” means vertical distance between the finished floor and the ceiling;
- 2.15** “**Chimney**” means an upright shaft containing and encasing one or more flues.
- 2.16** “**Civil Engineer**” means any person who is a graduate of civil engineering from a recognized Indian or foreign university or is a member of Civil Engineering Division of the Institution of Engineers (India) and is competent to carry out supervision of building works as per approved drawings and design.
- 2.17** “**Corner Plot or Site**” means a plot or site at the junction of and fronting on two or more intersecting streets;
- 2.18** “**Competent Authority**” means the Authority to sanction the building plan as per Chapter 10 of the Cantonment Act, 2006.
- 2.19** “**Combustible Material**” means any material if it burns or adds heat to a fire when tested for combustibility in accordance with good practice;
- 2.20** “**Commercial Building**” means a building the whole or a substantial part of whose entire floor area, is used or intended to be used, for business purpose.

- 2.21 "Courtyard"** means a space open to the sky enclosed or partially enclosed, by building boundary walls or by railing and shall be at ground floor level;
- 2.22 "Cup-board"** means a space used for storage of house-hold goods/dress having shelves/partitions not more than 1.5 metres apart.
- 2.23 "Covered Area"** means ground area covered by the building immediately above plinth level, but does not include the space covered by the following:
- (a) Garden, rockery, well and well structure, plant nursery, water pool, swimming pool (if uncovered), platform round a tree, water tank, fountain, bench, *chabutra* with open top and unenclosed sides and the like;
- (b) Drainage, culvert, conduit, catch pit, gully pit, chamber, gutter and the like;
- (c) Compound wall, gate, canopy, uncovered staircases, areas covered by *chajja* and the like;
- 2.24 "Damp Proof Course"** A course consisting of appropriate water proofing material provided to prevent penetration of dampness or moisture from any part of the ground to the structure or from one part of the structure to any other part of it.
- 2.25 "Detached Building"** means a building whose walls and roof are independent of any other building;
- 2.26 "Drain"** means a line of pipes including all fittings and equipment such as manholes, inspection chambers, traps, *gully* traps and floor traps, used for the drainage of a building, or a number of buildings, or yards appurtenant to buildings, within the same cartilage. Drain shall also include open channels used for conveying surface water.
- 2.27 "Drainage"** means the removal of any liquid by a system constructed for this purpose.
- 2.28 "Dwelling Unit/ Tenement"** An independent housing unit with separate facilities for living, cooking and sanitation needs.
- 2.29 "Enclosed Staircase"** means a staircase separated by fire resistant walls and doors from the rest of the building.
- 2.30 'Erection of building'** means to erect a new building on any site whether previously built upon or not.
- 2.31 "Executive Officer"** means Chief Executive Officer of the Delhi Cantonment Board.

- 2.32 "Existing Building or Use"** means a building, structure or its use as sanctioned or approved by the Competent Authority, existing before the commencement of the bye-laws or as decided by the Competent Authority from time to time.
- 2.33 "Exit"** means a passage, or means of egress from any buildings, storey or floor area to a street or any other open space of safety.
- (a) Vertical exit: It is a means of exit used for ascending or descending between two or more levels including stairways, ramps and fire escapes.
- (b) Horizontal exit: It is a protected opening through or around a fire resistant wall or bridge connecting two buildings.
- (c) Outside exit: It is an exit from the building to a public way, to an open area leading to a public way or an enclosed fire resistant passage leading to a public way.
- 2.34 "External Wall"** means outer wall of a building not being a partition wall, even though adjoining to a wall of another building and also means, a wall abutting on an interior open space of any building; all external walls shall be a minimum of 230 mm brickwork in suitable mortar or of suitable thickness as per structural design in case of reinforced concrete.
- 2.35 "Floor"** means the lower surface in a storey on which one normally walks in a building. The general term, floor, unless otherwise specifically mentioned, shall not refer to a mezzanine floor. Sequential numbering of floor shall be determined by its relation to the determining entrance level. For floors at or wholly above ground level the lowest floor in the building with direct entrance from the road/street to be termed as Ground floor. Other floors above ground floor shall be numbered in sequence as Floor 1, Floor 2, with numbers increasing upwards.
- 2.36 "Floor Area Ratio" or "FAR"** means the quotient obtained by dividing the multiple of the total of the covered area on all floors and hundred by the area of the plot i.e.
- $$\text{FAR} = \frac{\text{Total covered area of all floors} \times 100}{\text{Plot Area}}$$
- 2.37 "Flue"** means a confined space provided for the conveyance to the outer air of any product of combustion resulting from the operation of any heat producing appliance or equipment employing solid, liquid or gaseous fuel;
- 2.38 "Footing"** means off set portions at the base of a foundation to provide a greater bearing area;
- 2.39 "Foundation"** means that part of the structure which is below the lower most floor and which provides support for the superstructure and which transmits loads of the super-structure to the ground;

- 2.40 "Gallery"** means an intermediate floor or platform projecting from a wall of an auditorium or hall providing extra floor, additional seating accommodation etc.
- 2.41 "Garage Private"** means a building designed or used for the parking of a motor car or other vehicles;
- 2.42 "Habitable Room"** means a room occupied or designed for occupancy by one or more persons for study, living, sleeping, eating, kitchen if it is part of living room but does not includes bathroom, water closet compartments, laundries, serving and storage pantries, corridors, cellars, attics and other spaces that are not used frequently or during extended period;
- 2.43 "Hotel"** means a building used as abode for more than 15 persons who are lodged for compensation with or without meals;
- 2.44 "Industrial Building"** means any building or part of a building or structure, in which products or materials of all kinds and properties are fabricated, assembled or processed including refineries, gas plants, mills, dairies etc.
- 2.45 "Internal Wall"** means all partition walls in the interior of a building excluding walls which abut exterior or interior open spaces; internal walls when made of bricks shall be a minimum of 115 mm brickwork in suitable mortar; other non load bearing partitions shall be of suitable thickness.
- 2.46 "Loft"** means an intermediate floor in between two main floors but not more than 1.5 meters in height which may be adopted or constructed for storage purpose;
- 2.47 "Masonry"** means the form of construction composed of brick, stone, tile, concrete blocks, gypsum or other similar building material units or combination of these material units laid up, bonded together and set in mortar.
- 2.48 "Mezzanine Floor"** means an intermediate floor between two floor levels above ground floor and at least one side of it should form an integral part of space/floor below.
- 2.49 "Mumti"** means a structure with a covering roof over a staircase and its landing built to enclose only the stairs for the purpose of providing protection from weather and not meant for human habitation.
- 2.50 "Non-Combustible"** means a material which does not burn or add heat to a fire when tested for combustibility in accordance with good practice.
- 2.51 "Parapet"** means a low wall built along the edge of a roof or a floor not more than 0.90 meters height;
- 2.52 "Parking Space"** means an area enclosed or unenclosed sufficient in size to park vehicle together with a drive-way connecting the parking space with a street or alley and provided for ingress and egress of the vehicles.

- 2.53 "Partition"** means an interior non-load bearing wall, one storey or part storey in height.
- 2.54 "Pillar"** means a wood, stone, brick, RCC or a metal pillar and includes all columns or upright post or support, stanchions (steel structures) and an assemblage of columns of stanchions properly riveted or welded or bolted together;
- 2.55 "Plinth"** means the portion of a structure between the surface of the surrounding ground and surface of the floor, immediately above the ground.
- 2.56 "Plot or Site"** means a parcel of land occupied or intended for occupancy by one main building, together with the accessory buildings and used customarily and incidental to it, including the open space required by these byelaws and having frontage upon a street or upon a private way that has been approved by the authority having jurisdiction;
- 2.57 "Porch"** means covered surface supported on pillars or otherwise for the purpose of pedestrian or vehicular approach to a building;
- 2.58 "Public Building"** means a building used or intended to be used either ordinarily or occasionally, as a church, *chaupal*, temple, mosque or any other place of public worship, *dharamshala*, college/School hostel, theatre, cinema, public concert room, lecture room, library, orphanage, or rescue home or any other place of public assembly;
- 2.59 "Public Garage"** means a building or portion thereof designed other than a private garage, operated for gains, designed or used for repairing, servicing, hiring, selling or storing motor driven or other vehicles;
- 2.60** Re-erection of building' means to re-erect :
- (i) any building of which more than one half of the cubical contents above the level of the plinth have been pulled down, burnt or destroyed, or
 - (ii) any building of which more than one-half of the superficial area of the external walls above the level of the plinth has been pulled down , or
 - (iii) any frame building of which more than half of the number of the posts or beams in the external walls have been pulled down.
- 2.61 "Repairs"** means and includes the following activities, which do not otherwise violate any provisions regarding general building requirements, structural stability and fire safety requirements of these bye-laws:
- (a) Plastering and patch repairs;
 - (b) Re-roofing or renewal of roof including roof of intermediate floor at the same height;

- (c) Flooring and re-flooring;
- (d) Opening and renewing windows, ventilators and doors not opening towards the other property and without door leaves opening on public land on the ground floor;
- (e) Replacing fallen bricks, stones, pillars, beams etc;
- (f) Construction or reconstruction of sunshades not more than 0.75 meters in width within on own land not overhanging public street;
- (g) Construction or reconstruction of a parapet wall not exceeding 1.0 meter in height and *pardah* walls up-to a maximum height of 1.50 meters on any floor or floors;
- (h) Reconstruction of portions of buildings damaged by storm, rains, fire, earthquake or any other natural calamity to the same extent, and similar specifications as existing prior to damage, provided that this reconstruction is as per the terms of these Building Byelaws.
- (i) Construction or reconstruction of sign board in front of a shop provided it does not project beyond the boundary line of the plot on which the shop stands;
- (j) Erection or re-erection of internal partitions provided the same are within the purview of the Bye-laws.
- (k) Any other activity specifically included in the Act.

2.62 "Residential building" means a building used or constructed or adapted to be used wholly or principally for human habitation.

2.63 "Street" means any highway, street, lane, pathway, alley, stairway, passageway, carriageway, footway, square, place or bridge, whether a thoroughfare or not, over which the public have a rite of passage or access or have passed and had access uninterruptedly for a specified period, whether existing or proposed in any scheme, and includes all bunds, channels, ditches, storm-water drains, culverts, sidewalks, traffic islands, roadside trees and hedges, retaining walls, fences, barriers and railings within the street lines.

2.64 "Room Height" means the vertical distance measured from the finished floor surface to the finished ceiling.

2.65 "Set Back Line" means a line usually parallel with the centre line of the road or street and laid down in each case by the Board beyond which nothing can be constructed towards the road or street;

2.66 "Site or Plot" means a parcel/piece of land enclosed by definite boundaries.

- 2.67 "Smoke Pipe"** means a flue approximately horizontal, made of metal or other material in which smoke or the products of combustion are conducted from a furnace to a chimney.
- 2.68 "Store or Shop"** shall mean any store or shop in which it is not intended that any person shall reside;
- 2.69 "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;
- 2.70 "Structural Engineer"** means a person who is at minimum a graduate of civil engineering from a recognized Indian or foreign university or is a member of Civil Engineering Division of the Institution of Engineers (India) with experience in structural engineering practice which includes structural design and field work; A graduate in civil engineering shall possess a minimum of 3 years of professional experience, a post graduate shall possess a minimum of 2 years of professional experience and a doctorate shall possess a minimum of 1 year of professional experience.
- 2.71 "To Abut"** means to be positioned juxtaposed to a road, lane, open space, building etc.
- 2.72 "Warehouse"** 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 keeping or for sale or for any similar purpose, but does not include a storeroom attached to and used for the proper functioning of a shop;
- 2.73 "Water Closet"** means a privy with arrangements for flushing the pan with water but does not include bathroom.
- 2.74 "Window"** means an opening to the outside other than a door which provides all or part of the required natural light, ventilation or both to an interior space and not used as a means of ingress/egress.
- 2.75 "Workshop"** means a building where not more than ten technical person are employed in any repair or light manufacturing process;
- 2.76 "Washing Platform"** means an authorized platform for washing and also for servicing of scooters / cars etc;
- 2.77 "Assembly Buildings"** These shall include any building or part of a building where group of people congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes, for example theatres, motion picture houses, assembly halls, auditoria, exhibition halls, museums, skating rinks, gymnasium, restaurants, places of worship, dance halls, club rooms, passenger stations, and terminals of air surface and other public transportation services, recreation piers and stadia.

- 2.78 “Educational Buildings”** These shall include any building used for school, college or day care purposes for more than 8 hours per week involving assembly for instruction, education or recreation.
- 2.79 “Commercial Buildings”** These shall include any building or part of a building which is used for transaction of business for the keeping of accounts and records for similar purposes; doctors’ service facilities, barber shops, city halls, town halls, court houses, libraries shall be classified in this group insofar as principal function of these is transaction of public business and the keeping of books and records.
- 2.80 “Group Housing”** means a group of houses for dwelling purposes and may comprise all or any of the following ; namely (a) a dwelling unit, (b) open spaces intended for recreation and ventilation, (c) roads, paths, sewers, drains, water supply and ancillary installations, street lighting and other amenities , (d) convenient shopping place, schools, community hall or other amenities for common use;

3.0 Building Sanction Required:

- 3.1** No person shall carry out any erection, New construction, re-erection, make additions or alterations to any building or cause the same to be done without first obtaining a separate building sanction for such building erection/re-erection from the Competent Authority, and without obtaining the commencement certificate for the said building sanction; Provided that any sanction issued by the Competent Authority shall be valid for the period as provided under Section 243 of the Act.
- 3.2** In case of land being held on lease, no building sanction would be given if the proposed building contravenes lease conditions.

4.0 Procedure for obtaining Building Sanction:

- 4.1** Every person who intends to erect or re-erect a building or to make additions or alteration in any place of the building shall, give notice in writing to the Executive Officer, of the said intentions in prescribed Form A in the Appendix.
- 4.2** Such notice shall be accompanied by four copies of all drawings and documents. Requisite drawings and documents shall be as per Bye law nos. **5.0 to 13.0**
- 4.3** The drawings shall be printed on white paper, using black lines on one side of the white paper. Normally four sets of documents shall be submitted with the notice out of which one set shall be on plasticized paper
- 4.4** One set of documents printed on plasticized paper shall be retained in the office of the Competent Authority for record after the issue or refusal of Sanction. In case of building schemes, where the clearance is required from other agencies like department of explosive etc. number of copies of plans required shall be as decided by the Competent Authority.

4.5 Recommended Notation for Coloring of Plans:

The site and building plans shall be colored as specified in the table given below. Where items of work are not identified, the coloring notation used shall be indexed:

Table 01: Coloring Notations

| S N | Item | Site plan | Building plan |
|-----|--------------------------------|--------------------|-------------------|
| 1 | Plot lines | Thick green | Thick green |
| 2 | Existing street | Green | Not applicable |
| 3 | Permissible building line | Thick dotted green | Not applicable |
| 4 | Existing work (outline) | Green | Green |
| 5 | Work proposed to be demolished | Yellow hatch | Yellow hatch |
| 6 | Proposed addition/alteration | Red | Red |
| 7 | Proposed new work | Not to be colored | Not to be colored |
| 8 | Drainage | Red dotted | Red dotted |
| 9 | Water supply | Thin dotted green | Thin dotted green |

4.6 Dimensions: All dimensions shall be indicated in metric units.

4.7 The size of drawing sheets shall only by as specified below:

Table 02: Size of Drawing Sheets

| S N | Drawing type | Trimmed size (in mm) |
|-----|--------------|----------------------|
| 1 | A-0 | 841X1189 |
| 2 | A-1 | 594X841 |
| 3 | A-2 | 420X594 |
| 4 | A-3 | 297X420 |
| 5 | A-4 | 210X297 |

5.0 Key plan (location plan):

A key plan drawn to a scale of not less than 1:10000 shall be submitted along with the application for a building sanction showing the boundary locations of the site with respect of neighborhood landmarks.

6.0 Site plan:

The site plan sent with the application for sanction shall be drawn to a scale of 1: 500 and shall show:

- 6.1 The boundaries of the site;
- 6.2 The direction of the North point relative to the plan of the buildings;
- 6.3 All existing building or structures on, over or under the site or projecting beyond it;
- 6.4 All surrounding buildings in outline within a distance of 12 metres from the boundaries of the site;

- 6.5 The name of the street in which the building is proposed to be situated, if any.
- 6.6 The position of access from the street to the building and the width of the street (if any) in front and of the street (if any) at the side or rear of the building.
- 6.7 Any existing physical feature, such as wells, drains, trees etc;
- 6.8 Parking plans indicating the parking spaces for all buildings.
- 6.9 Scheme of tree planting proposed.
- 6.10 The Rainwater harvesting scheme complete with all details of drainage scheme and rainwater harvesting pits.
- 6.11 Holding number or plot no. of the property on which the building is intended to be erected is to be indicated on the drawing.
- 6.12 Such other particulars as may be prescribed from time to time by the Competent Authority;

7.0 Architectural drawings of the Building:

All drawings of the building viz. plans, elevations and sections accompanying the notice shall be drawn to a scale of 1:50 for plots measuring up to 250 square metres; for plots over 250 square metres they shall be drawn at 1:100.

The drawings shall include:

- 7.1 Floor plans of all floors together with the covered area on each floor.
- 7.2 Sizes of rooms, thickness of walls, size of columns and the position and width of stair cases, ramps and other exit ways, lift wells, lift machine room and lift pit details;
- 7.3 Exact location of essential services, e.g. water closet, urinals, sink, baths, bath-tubs, showers and the like;
- 7.4 Sections showing clearly, the sizes of footings, thickness of basement walls and all intermediate floor and roof slabs, wall thicknesses, sizes and spacing of framing members, ceiling heights and parapet-heights along with details of their materials. The section should indicate the drainage and the slope of the roof and at least one section should be taken through the staircase and toilet respectively;
- 7.5 All street/side elevations:
- 7.6 Dimensions of the projects like *chajjas*, cupboards, balconies and canopies;

- 7.7 Terrace plan indicating the drainage and slope of roof; details indicating the drainage system and collection of rain water for ground water recharge;
- 7.8 Indication of the 'North point';
- 7.9 Plans and sections of water supply and sewerage disposal system, if any;
- 7.10 Set back line;
- 7.11 Labeling of individual spaces in the plans and sections to show the use or occupancy of all parts of the buildings.
- 7.12 Landscape plan including details of parking spaces provided and scheme of rain harvesting scheme;
- 7.13 Give indication of sizes of all doors, windows, ventilators and other openings including their cill and lintel levels in a proper schedule form; and
- 7.14 Such other particulars as may be required to explain the proposal clearly and as prescribed by the Authority.

8.0 Service Drawings:

Plan, elevations and sections of water supply, sewerage disposal system and details of building services, where required by the Competent Authority shall be made available on a scale of 1:100.

9.0 Structural Drawings and Design:

Detailed documentation of structural design in keeping with Bylaw no. **60.0** including structure plans, framing plans, structural details including reinforcement and calculations duly verified by Competent Structural Engineer.

- 9.1 This requirement shall be applicable for plots of 500 square metres and above only. For plots of less than 500 square metres submission of Form C shall be considered sufficient.

10.0 Specifications:

Specifications of the proposed structures are to be submitted in Form B set forth in the Appendix, duly signed by Architect shall accompany the notice.

11.0 Building Sanction Fees and Applicable Charges:

- 11.1 **Building Sanction Fees:** The notice as per Bye-law no. **4.1** shall be deemed valid only if the Applicant has paid the requisite building sanction fees to the Competent Authority and receipt of such payment attached with **Form A**. The schedule of fees is as follows:

(a) Building sanction fees for all building types shall be calculated as per the charges and guidelines issued by Competent Authority from time to time.

(b) The revalidation fees applicable as per Byelaw no. **14.4** herein under after the expiry of the validity period of original sanctioned plan shall be calculated as per the guidelines issued by Competent Authority from time to time.

- 11.2** Stacking of building material on roads, pavements, sidewalks and other public land maintained by the Competent Authority shall not take place without the permission of the Competent Authority on a case to case basis. The stacking of material may be allowed at the sole discretion of Competent Authority. Such stacking shall be permissible after approval of the Competent Authority and on payment of charges as fixed by the Competent Authority from time to time.

12.0 Documents at the time of Application:

Along with all drawings mentioned herein above, the following documents shall be submitted at the time of application for building sanction:

- 12.1** Application Form for Building Sanction as per **Form A** set forth in the Appendix duly signed by Applicant.
- 12.2** Specifications of the Proposed Structure as per **Form B** signed by Architect and the Applicant.
- 12.3** Certificate Regarding Safety from Natural Hazard and Structural Safety as per **Form C**, set forth in the Appendix, signed by Structural Engineer and the Applicant.
- 12.4** **Form D** for Supervision signed by Architect / Civil Engineer / Structural Engineer.
- 12.5** Indemnity Bond as per **Form E**, set forth in the Appendix, in case of proposal for the construction of a basement;
- 12.6** Clearance Certificate for Tax Arrears: The notice for sanction of building shall also be accompanied by an attested copy of clearance certificate from the Tax / Revenue Department of the Board in Token of having paid the tax arrears, if any.
- 12.7** In case of requirement of statutory clearance for certain occupancies requiring clearance from the authorities like, Civil Aviation, Railways, Directorate of Industries, State Govt., Pollution Control Board, Directorate of Boiler and smoke nuisance etc, the relevant clearance from the authority shall also accompany the Building application.

13.0 Signing of Documents:

- 13.1** All the plans shall be duly signed by the Applicant/s and the Architect, stating that the building plans are within the framework of the byelaws.
- 13.2** The Applicant shall sign the notice for application as per **Form A**.
- 13.3** In case of proposal for a basement the Applicant shall sign the Indemnity Bond as per **Form E**.
- 13.4** The Architect and Applicant shall certify to the specifications and covered area of the proposed building as per **Form B**.
- 13.5** A Structural Engineer shall certify the Structural safety of the building and conformity to Bylaw no. **60.0** of the bye-laws and sign **Form C** along with the Applicant.
- 13.6** The Architect/ Civil Engineer / Structural Engineer who will be responsible to supervise the work as the case may be along with the Applicant shall certify the same as per **Form D**.

14.0 Sanction/ refusal of Plans, Validity Period and Revalidation Procedure:

- 14.1** The Competent Authority, as the case may be, may either sanction or refuse to sanction the plans and specifications or may sanction them with such modifications or directions as the Competent Authority may deem necessary. The communication of sanction or refusal of building application will be made within 30 days in case of buildings located within notified civil area of the Cantonment and within 60 days in case the area is located outside notified civil area.
- 14.2** Thereupon the decision of the Competent Authority may be communicated to the applicant in the prescribed **Form F** or **Form G**, set forth in the Appendix as the case may be.
- 14.3** The sanction once granted shall be valid for a period of two years from the date on which it is given as provided in section 243 of the Cantonments Act, 2006. If the building so sectioned is not begun by the person who has obtained the sanction or someone lawfully claiming under him within that period, it shall not thereafter be begun unless the Chief Executive Officer, on application made therefor has allowed an extension.
- 14.4** If the erection or re-erection of the building is not completed within the specified period as mentioned in the sanction of building plan, it shall not be continued thereafter without fresh sanction obtained for revalidation of the sanction : provided that not more than two extensions, each for not more than one year, will be allowed in any case.

14.5 The Building Sanction can be revalidated after the date of the expiry of the original Sanction of building plans on payment of the required revalidation fees as decided by the Competent Authority. Application for such revalidation shall be submitted in plain paper along with the following documents:

- (a) Original sanctioned plan.
- (b) Revalidation fees chargeable based on the decision and guidelines issued by Competent Authority from time to time.
- (c) Documents in support of construction, if any, having been done within valid period of sanction
- (d) Certificate of supervision from Architect/Engineer/Supervising Engineer and the Applicant that the construction will be carried out under his supervision according to the plans sanctioned by the Competent Authority.

15.0 Scrutiny of Plans:

Once the plans have been scrutinized and objections have been pointed out, the applicant giving notice may modify the plan, comply with the objections raised and resubmit it. The prints of plans resubmitted for final approval shall not contain superimposed corrections. The Competent Authority may sanction or refuse to sanction the said building plan. The Competent Authority shall, however, scrutinize the resubmitted plans and if there be further objections, the plans shall be rejected with observations.

16. Revocation of Sanctioned Building Plans and Liability of the applicant to conform to byelaws:

- 16.1** The Competent Authority may revoke any building sanction issued under the provisions of these byelaws, whenever there has been any false statement, or any misrepresentation of material fact, or concealment of facts in the application on which the building sanction was based, and the whole work executed on the basis of such sanction shall be treated as unauthorized.
- 16.2** Any or all executed works in cases of deviation to the sanctioned plan shall be treated as unauthorized construction and would lead to revocation of accorded sanction.
- 16.3** In the case of revocation of sanction based on false statement or any misrepresentation of material fact, or concealment of facts in the application or deviation from sanctioned plan during course of construction no compensation /damages shall be payable by the Competent Authority.
- 16.4** No such order of revocation shall be passed by the Competent Authority without giving a reasonable opportunity to the applicant of being heard.
- 16.5** In the event of revocation of building sanction by the Competent Authority no

construction shall be permitted while appeals against orders for revoking sanctions are being considered by the Competent Authority.

- 16.6** In the event of building construction continued after passing orders by the competent authority revoking sanction of the building permission any construction undertaken would be termed as unauthorized construction. The Competent Authority shall be empowered to charge penalties/ damages @ 10% of the cost of unauthorized construction and order demolition of unauthorized construction or both.
- 16.7** Neither the granting of the sanction nor the approval of the drawings and specifications or inspections made by the Executive Officer or his Technical Staff during erection of the building shall in any way relieve the applicant from full responsibility for carrying out the work in accordance with the requirements of these byelaws or as per the details of Form B and Form C rendered at the time of Application of building sanction.

17.0 Notice of commencement of work

- 17.1** On issue of building sanction the applicant shall commence the work for which the building sanction has been issued. The Applicant shall give notice to the Executive Officer of his intention to start work on the building site by submitting **Form H**, set forth in the Appendix.
- 17.2** **Notice of Completion:** On completion of work the Applicant shall submit a Notice of Completion of the building as per **Form i**, set forth in the Appendix through the Architect/Engineer who has supervised the construction within the validity period of the sanction.
- 17.3** **Completion-cum-Occupancy Certificate:** The Competent Authority on receipt of the notice of completion shall inspect the work and issue a certificate of occupancy as per **Form J**, set forth in the Appendix. Alternately the Competent Authority may refuse or raise objections to the served notice and communicate the same to the Applicant. No person shall occupy or allow any other person to occupy any building or part of a building for any purpose until the raised objections have been addressed and the building has been granted Occupancy Certificate

18.0 Penalties

Any person who contravenes, any of the provisions of these byelaws shall be punishable as per the provisions of the Cantonment Act 2006.

19.0 Repeal and Saving

- 19.1** The previous bye-laws regulating erection and re-erection of buildings in the Cantonment of Delhi, published with the notification of the Government of India, are hereby repealed.
- 19.2** Notwithstanding such repeal, anything done or omitted to be done or any action taken under the said bye-laws shall be deemed to have been done or taken under the corresponding provisions of these bye-laws.

MODEL BUILDING BYELAWS – 2016, For DELHI CANTONMENT AREA PART II: GENERAL BUILDING REQUIREMENTS

20.0 Requirement of sites:

No piece of land shall be used as a site for the construction of a building if the Competent Authority considers that the site is insanitary and that it is dangerous to construct a building on it and also if the site is not drained properly or is incapable of being well drained.

- 20.1. The minimum size of a plot, 'for the purpose of erection' or re-erection of a residential building, shall not be less than 25 square meter.

21.0 No Construction over means of Access.

- 21.1 No person who is sanctioned to erect a building shall erect or cause or sanction to erect or re-erect any building which in any way encroaches upon or diminishes the areas set apart as means of access.
- 21.2 If any structure or fixture is erected upon a means of access so as to reduce its width, the Competent Authority shall remove the same and recover the expenses incurred therefore from the Applicant/Occupier

22.0 Width of Means of Access

- 22.1 **Residential Buildings:** In all new residential/ town planning schemes the residential plot shall abut on a public means of access like a street. Plots which do not abut on a street shall abut/front on a means of access, the width and other requirements of which shall be as given in Table 3.0. In no case, new development of plots shall be sanctioned if it is accessible by a public street of width less .

Table 3.0: Residential Buildings - Width and Length of Means of Access

| S No | Width of means of access | Length of means of access |
|--|--------------------------|---------------------------|
| 1 | 6.0 metres | 75 metres |
| 2 | 7.5 metres | 150 metres |
| 3 | 9.0 metres | 250 metres |
| 4 | 12.0 metres | 400 metres |
| 5 | 18.0 metres | 1000 metres |
| 6 | 24.0 metres | Above1000 metres |
| Note: If the development is only on one side of the means of access, the prescribed width may be reduced by 1 m on each case | | |

- 22.2 Other Buildings:** For other buildings like offices, cinema houses, theaters, stadia, educational buildings, markets and other public facilities, which attract crowds, the means of access shall not be less than that shown in Table 4.0.

Table 4.0: Non-Residential Buildings - Width and Length of Means of Access

| S No | Width of means of access | Length of means of access |
|------|--------------------------|---------------------------|
| 1 | 12.0 metres | 200 metres |
| 2 | 15.0 metres | 400 metres |
| 3 | 18.0 metres | 600 metres |
| 4 | 24.0 metres | Above 600 metres |

Further, in no case shall the means of access be lesser in width than the internal access ways in layouts and subdivisions.

- 22.3** The means of access shall be leveled, metalled, flagged, paved, sewer, drained, channeled, lighted, laid with water supply line and provided with trees for shade to the satisfaction of the Authority free of encroachment by any structure or fixture so as not to reduce its width below the minimum required and shall be maintained in a condition to the satisfaction of the Authority.
- 22.4** These clauses shall not be applicable to existing layouts prior to the notification of these byelaws

23.0 Open Spaces/Set Backs:

The provisions for open spaces at the front side and rear of the building shall be as per Table 5.0

Table 5.0: Minimum Building Setback

| S N | Plot size (in square metres) | Minimum setback (in metres) | | | |
|-----|------------------------------|-----------------------------|------|----------|----------|
| | | Front | Rear | Side (1) | Side (2) |
| 1 | Up to 175 | 0 | 0 | 0 | 0 |
| 2 | Above 175 up to 300 | 3 | 0 | 0 | 0 |
| 3 | Above 300 up to 750 | 3 | 3 | 3 | 0 |
| 4 | Above 750 up to 2250 | 6 | 3 | 3 | 3 |
| 5 | Above 2250 up to 10000 | 9 | 6 | 6 | 6 |
| 6 | Above 10000 | 15 | 9 | 9 | 9 |

- 23.1** In case the permissible coverage is not achieved with above-mentioned setbacks in a plot, the setbacks of the preceding category may be allowed by the Competent Authority
- 23.2 Interior open spaces - Courtyard:** The whole of every room excepting bath, water closet and store room and not abutting on either the front, rear or sides open spaces shall abut on an interior open spaces (courtyard), whose minimum width shall be 3 meters. Further the courtyard shall have an area at

all levels of courtyard of not less than the square of the $1/5^{\text{th}}$ the height of the wall abutting the courtyard; Provided that when any room excluding a bathroom or water closet is dependent for its light and ventilation on an inner courtyard, the dimension shall be such as is required for each wing of the building.

- 23.3 Interior open space – Ventilation shaft:** For ventilating the spaces for bathroom and water closet, if not opening on to front, side, rear or interior (courtyard) open spaces, these shall open on the ventilation shaft, the size of which shall not be below values indicated in Table 6.0.

Table 6.0: Minimum Size of Ventilation Shaft

| S.No | Building height in metres. | Size of shaft in square metres. | Minimum one dimension in metres. |
|------|----------------------------|---------------------------------|----------------------------------|
| 1 | Up to 10 | 1.2 | 0.9 |
| 2 | 12 | 2.8 | 1.2 |
| 3 | Above 12 | 4.0 | 1.5 |

24.0 Ground coverage area, permissible FAR and tenement density:

For residential plots with plotted housing the maximum covered area, FAR and number of dwelling units per residential plot shall be as per Table 7.0.

Table 7.0: Permissible Ground Coverage, FAR and Dwelling Units per plot

| S N | Area of plot in square metres. | Maximum ground coverage as % | F A R | Dwelling units per plot |
|-----|--------------------------------|------------------------------|-------|-------------------------|
| 1 | Up to 175 | 100 | 350 | 03 |
| 2 | Above 175 to 300 | 90 | 300 | 04 |
| 3 | Above 300 to 750 | 75 | 225 | 06 |
| 4 | Above 750 to 1000 | 50 | 150 | 09 |
| 5 | Above 1000 to 1500 | 40 | 120 | 09 |
| 6 | Above 1500 to 2250 | 40 | 120 | 12 |
| 7. | Above 2250 to 3000 | 40 | 120 | 15 |
| 8 | Above 3000 to 3750 | 40 | 120 | 18 |
| 9. | Above 3750 | 40 | 120 | 21 |

- 24.1** The total coverage and FAR permissible in any plot in a category, shall not be less than that permissible and available to the largest plot in the next lower category.
- 24.2** The Cantonment Board shall be competent to disregard variation of upto 5% in plot size, arising from conversion from square yard to square metre and to grant the norms applicable to the lower category of plot as per Table 7.0.
- 24.3** Mezzanine if constructed shall be included in FAR.

- 24.4** Basement shall not be counted towards FAR if used for purpose permissible as per Byelaw no 40.0. Basement area shall not extend beyond the coverage on the ground floor as per permissible and sanctioned built up area, but may extend to the area below the internal courtyard and shaft.
- 24.5** In bungalow areas FAR and ground coverage should not exceed 50% for all plot sizes. The FAR and ground coverage provided in table No.7 shall not be applicable to bungalow areas.
- 24.6** No construction would be permitted on plots of less than 25 Sqmt. Wherever there is existing structure/ building that is either of size less than prescribed 25 Sqmt. or where the existing structure/ building exceeds ground coverage and FAR provided in table No.7 in these bye laws, shall be permitted as per existing plot size and/or approval granted to the original structure prior to coming into the effect the present building bye laws (applicable for redevelopments in plots that are developed through higher coverage and FAR).
- 24.7** Offices or commercial establishments provided it is air-conditioned. The area of such spaces shall be counted in FAR calculations.
- 24.8** Encroachment on public land shall not be regularized and shall be removed before the local body grants sanction for regularization of additional construction or height.
- 24.9** Projections/*chajjas*/covered *chajjas*/ built-up portions existing as on notification of these bye-laws above 3 metre height in the case of plots up to 175 square metres shall be regularized subject to the Applicant/Occupier obtaining a Structural Safety Certificate and Fire Clearance from the Competent Authority within a time frame as notified by the Board. Such projections/built-up portions thereon shall be counted in FAR and in the case of excess FAR over and above permissible FAR, such FAR in excess shall be regularized subject to payment of all applicable betterment and other charges imposed by the Competent Authority at the time of regularization.
- 24.10** The following shall not be included in covered area and FAR calculation:
- (a) A basement under a building used as parking space and for air conditioning plant room, other building services and storage as defined at Bye laws No. 40.
 - (b) Area under stilts at the ground floor used as parking space.
 - (c) Electrical cabin or a substation, watchman's booth width of maximum size of 1.5 metre with minimum width or diameter of 1.2 metres, pump house, garbage shaft, and space required for location of fire hydrants, electrical fittings and water tank.
 - (d) Projections as specifically exempted under the byelaws.

(d) Staircase *mumty*, chimneys and area under water-tanks of dimensions as permissible under these bye-laws.

(f) The lift machine room. The lift shaft provided shall be included only once for FAR and ground coverage calculations.

(g) Rockery, plant nursery, water pool, swimming pool (if uncovered) platform round a tree, tank, fountain bench, pavilion with open top and unenclosed side by walls, ramps, compound wall, gate, slide swing, overhead water tank on top of buildings;

24.11 Exception to ground coverage and FAR:

The following exemptions may be sanctioned

(a) Horizontal projections of 0.75 metres.

(b) A canopy not exceeding 5 metres in length and 2.5 metres in width in the form of cantilever and unenclosed over the main entrance providing there is a minimum clear height of 2.1 metres below the canopy. The canopy shall not be accessible from the floor above for its use as a sit out place. There shall be minimum clearance of 1.5 metres between the plot boundaries and canopy. In single storied residential buildings, only one such canopy shall be sanctioned for such individual detached blocks. In more than one storied buildings, two canopies shall be Sanctioned one over the ground floor entrance and the other over the entrance to higher floor/s.

(c) In residential buildings a balcony or balconies at roof level above first floor (including stilt floor) of a width of 1.0 metres from building line to the outer most line of balcony over hanging setbacks within one's own land and courtyard or extending beyond boundary line as approved by the competent authority on payment of penal charges as decided from time to time for its regularization. The total length of such balconies shall not be more than 1/3 of the total external; length of the building length.

25 Building Height:

Maximum building height in all plot categories shall be 15 m or 1.5 times the width of road and the set back, which ever is less, including height of basement or stilt.

The following appurtenant structures shall not be included in the height:

(a) Parapet wall;

(b) Roof water tanks and their supports;

(c) Ventilation and air-conditioning structures;

(d) Lift rooms and similar service equipment;

(e) *Mumty* of staircase;

(f) Chimneys;

(g) Architectural features not exceeding 1 metre in height.

25.1 Restrictions to height in the vicinity of aerodromes:

25.1.1. For building in the vicinity of aerodromes, the maximum height of such building shall be decided in consultation with the Civil Aviation Authorities. This shall be regulated by the rules for giving no objection certificate for construction of buildings in the vicinity of aerodromes of Directorate General of Civil Aviation, which are given in Annex A. However, the latest rules of Directorate General of Civil Aviation shall be followed in all cases of building coming up in the vicinity of an aerodrome.

25.1.2. For the purpose of 25.2.1 new building, structures which rise to 30m or more in height and are to be located within 20km of the aerodrome reference point, shall be constructed only if no objection certificate has been obtained from the Directorate General of Civil Aviation

25.1.3. In the case of buildings to be erected in the vicinity of defence aerodromes, the maximum height of such buildings shall be decided by the Defence Authority.

25.1.4. This will apply specially to new constructions, overhead high voltage/medium voltage lines, telephones/telegraph lines, factories, chimneys, wire/TV antennas.

25.1.5. No new chimneys or smoke producing factories shall be constructed within a radius of 8 km from the aerodrome reference point (ARP).

25.1.6. Overhead high voltage/medium voltage lines or telephone/telegraph lines shall not be permitted in the approach/take-off climb areas within 3000m of the inner edge of these areas.

25.1.7 A 3 m margin shall be allowed in new constructions for wireless/TV antennas, cooling towers and MUMTIES.

25.1.8. Butcheries, tanneries and solid waste disposal sites shall not be permitted within 10 km from the aerodrome reference point.

26 Parking Space

26.1 Parking provision for different types of development shall be as per norms laid out in Table 8.0. The standards given are in Equivalent Car Space (ECS) as laid out by the National Building Code of India and it includes parking of all vehicles like cars, scooter, cycles and light and heavy commercial vehicle.

Table 8.0: Parking Standards in ECS

| S N | User/Use Premises | Per 100 square metre of floor area |
|--|---|------------------------------------|
| 1 | Residential: In plots of 250 square metres and above* | 1.00 ECS |
| 2 | Residential Group housing | 2.00 ECS |
| 3 | Offices and Courts | 1.80 ECS |
| 4 | Sub-city commercial area, Hotel & service apartment | 3.00 ECS |
| 5 | Local and convenience shopping centre | 2.00 ECS |
| 6 | Primary, Middle and Secondary School | 1.33 ECS |
| 7 | Senior Secondary School | 2.00 ECS |
| 8 | Hospital, Nursing Home, Maternity Home, Diagnostic Center & Medical College | 2.00 ECS |
| 9 | College, Vocational Training Institute & Professional College | 1.33 ECS |
| 10 | Post Office, telephone exchange and fire station | 1.33 ECS |
| 11 | Old age home, orphanage, working persons hostels | 1.80 ECS |
| 12 | Multipurpose community hall and Banquet hall | 3.00 ECS |
| 13 | Club, Auditorium and Religious building | 2.00 ECS |
| 14 | Exhibition hall and conference facility | 2.00 ECS |
| * 2 ECS shall be provided per plot in residential plots less than 250 square metres. | | |

26.2 These parking norms shall be applicable for all new applications for building plan sanctions.

26.3 This parking can be provided in any manner i.e. covered, under stilts or open. In providing the parking, care has to be taken that 50% of the open space in plots which are above 1000 square metres is left for hard and soft landscaping and not accounted in parking calculations.

26.4 The area of each ECS shall be as follows:

- (a) Basement: 32 square metre.
- (b) Stilts: 28 square metre.
- (c) Open: 23 square metre.
- (d) Multi-level with ramps: 30 square metre.
- (e) Automated multilevel with lifts: 16 square metre.

MODEL BUILDING BYELAWS –, For DELHI CANTONMENT AREA PART III: REQUIREMENTS OF PARTS OF BUILDING

27 Plinth of Main building:

The plinth of any part of a building shall be so located with respect to surrounding ground level that adequate drainage of the site is assured but not at a height of less than 0.45 metres.

28 Plinth of Interior Courtyards:

Every interior courtyard shall be raised at least 0.15 metres above the surrounding ground level and shall be satisfactorily drained.

29.0 Size of Habitable Rooms:

- 29.1** No habitable room shall have an area of less than 9.5 square metres.
- 29.2** In case of hostels of educational institutions the minimum size of a habitable room for the residency of a single person shall be 7.5 square metres.
- 29.3** The minimum width of a habitable room shall be 2.4 metres.
- 29.4** In a two room tenement one shall be not less than 9.5 square metres and other 7.5 square metres.

30.0 Height of Habitable Room:

The height of all rooms for human habitation shall not be less than 2.75 metres measured from the surface of the floor to the lowest point of the ceiling i.e. bottom of slab.

- 30.1** In case of centrally air-conditioned building, height of the habitable room shall not be less than 2.4 meters measured from the surface of the slab or to the underside of the false ceiling.
- 30.2** The minimum clear head room under beam shall be 2.4 metres. In the case of pitched roof the average height shall not be less than 2.75 metres and the minimum height under the eaves level shall not be less than 2.1 metres.
- 30.3** With the exception of residential hotels of the category of three-star and above, Assembly, institutional, Educational, Industrial, Hazardous and Storage Occupancies, the maximum room height shall not be more than 4.2 metres.

31.0 Bathrooms and water closets (combined):

- 31.1 Size:** The minimum size of a bathroom shall be 1.8 square metres and the minimum width of a side shall be 1.2 metres. The minimum size of a water closet shall be 1.1 square metres and the minimum width of a side shall be 0.9 metres. The minimum size of a combined bathroom and water closet shall be 2.8 square metres and the minimum width of a side shall be 1.2 metres.
- 31.2 Height:** The minimum height of a bathroom or water closet measured from the surface of the floor to the lowest point in the ceiling i.e. bottom of slab shall be 2.2 metres.
- 31.3 Other Requirements:** A bathroom or water closet shall:
- (a) Be so situated that at least one of its walls shall open to external air and shall have a minimum opening in the form of a ventilator or window of 1.0 square metres.
 - (b) Not be directly under or above any room other than another water closet, bathroom, washing area or terrace unless it has a water tight floor.
 - (c) Have the platform and/or seat made of water tight non-absorbent material.
 - (d) Be enclosed by walls/ partitions whose surface is finished with a smooth impervious material to a minimum height of 1.5 metre above the floor level.
 - (e) Be provided with an impervious floor finish, with floor surface sloping towards the drain with a suitable grade and not towards any other habitable room.
- 31.4** No room containing water closets shall be used for any purpose except as a lavatory and no such room shall open directly into a kitchen or cooking space by a door, window or other opening. Every room containing water closets shall have a door completely closing the entrance to it.

32.0 Kitchen:

- 32.1 Size:** The minimum area of the kitchen shall be 4.5 square metres and the minimum width of a side shall be 1.5 metres. The minimum area of the kitchen which is also intended to be used as dining room shall be 9.5 square metres and the minimum width of a side shall be 2.4 metres.
- 32.2 Height:** The minimum height of a kitchen measured from the surface of the floor to the lowest point in the ceiling i.e. bottom of slab shall be 2.75 metre, except for the portion to accommodate the floor trap of the upper floor.
- 32.3 Other requirements:** Any room to be used as kitchen shall have:
- (a) A height of not less than 2.75 metres;
 - (b) A chimney not less than 0.5 square metres in area after pargetting if fire wood, coal or like material is used, which will generate smoke.

- (c) A window the size of which shall be subject to Byelaw no. 42.4 opening directly to an interior or exterior open space, but not into a shaft.
- (d) Unless separately provided for in a pantry, means for the washing up of kitchen utensils which shall lead directly or through a sink to a grated and trapped connection to the waste pipe.
- (e) Be enclosed by walls/ partitions whose surface is finished with a smooth impervious material to a minimum height of 1.5 metre above the floor level.
- (f) Be provided with an impervious floor finish, with floor surface sloping towards the drain with a suitable grade and not towards any other habitable room.
- (g) fly-proof gauze covering for all doors and windows except where a cooking place is provided in a verandah of single living room tenement.

33.0 Pantries:

Pantries shall have

- (a) A floor area of not less than 3 square metres and a minimum width of a side shall be 1.4 metres.
- (b) The pantry shall have a sink for cleansing of kitchen's utensils which shall drain through a grated and trapped connection to the waste pipe.
- (c) Be enclosed by walls/ partitions whose surface is finished with a smooth impervious material to a minimum height of 1.5 metre above the floor level.
- (d) Be provided with an impervious floor finish, with floor surface sloping towards the drain with a suitable grade and not towards any other habitable room.

34.0 Loft:

- (a) The maximum height of a loft shall be 1.5 metres and the loft may be provided over corridors and passageways only
- (b) The clear head room under the loft shall not be less than 2.2 metres,
- (c) Loft when provided in a commercial area and industrial building shall be located 2 metres away from the entrance.

35.0 Projections and Ledges:

35.1 A ledge shall not be sanctioned in habitable rooms;

35.2 The cantilever projections of cup-board and shelves shall be sanctioned and shall be included in covered area calculations. Such projections shall be up to 0.75 metres in depth provided:

- (a) That no cup-board shall project in the side set back on the ground floor.

(b) That outer length of cup-board overhanging in the setback area shall not exceed 2.00 metres per habitable room.

(c) Notwithstanding the above, continuous cupboard/shelf with 0.6 metres projections shall be Sanctioned provided the same is constructed underneath the sill portion of the window (not exceeding 0.9 metres from floor) and over the lintel or window (at heights above 2 metres above door level).

36.0 Mezzanine Floor:

36.1 Size: Mezzanines shall not be sanctioned in residential buildings. When provided in commercial and factory buildings the aggregate area of the mezzanine floor shall not exceed 33-1/3 percent of the built up area of that floor.

36.2 Height: The minimum height of a mezzanine floor shall be 2.2 metres. The head room under mezzanine floor shall not be less than 2.2 metres.

36.3 Other Requirements: A mezzanine floor may be sanctioned over a room or a compartment provided that:

(a) Mezzanine area shall be counted towards the FAR.

(b) In case the size of mezzanine floor is 9.5 square metres or more, it should conform to the standard of living room insofar as lighting and ventilation is concerned.

(c) It is so constructed as not to interfere under any circumstances with the ventilation of the space over and under it;

(d) Such mezzanine floor or any part of it shall not be used as a Kitchen.

(e) In no case shall a mezzanine floor be closed so as to make it liable to be converted into unventilated compartments.

37.0 Store room:

37.1 Size: The area of a Store room provided in residential buildings shall not be more than 3 square meters. In case the area of the store room is more than 3 square metres the light and ventilation requirements to the extent of 1/8th of the floor area shall be provided.

37.2 Height: Height of a store room shall not be less than 2.2 meters.

38.0 Garage

38.1 Private garage: The size of a private garage in residential building shall be not less than 2.5 metres x 5 metres. The garage if located in the side open space shall not be constructed within 1.5 metres from the main building.

38.2 Public Garage: The size of a public garage shall be calculated based on the

number of vehicles to be parked and the minimum parking spaces for each vehicle as specified in bye law 26.4.

- 38.3 Height:** The maximum head room in a garage and parking area shall be 2.4 metres.
- 38.4** The plinth of a garage located at ground level shall not be less than 0.15 metres above the surrounding ground level.
- 38.5** The garage shall be set back behind the building line for the street/road on to which plot abuts, and shall not be so located to affect the access ways to the building. If the garage is not set back as aforesaid the Competent Authority may require the Applicant or occupier of the garage to discontinue use of premises or to take such measures as the Competent Authority may consider necessary in order to prevent danger of obstruction to traffic along the street.
- 38.6 Corner site:** When the site fronts on two streets, the frontage would be as on the street having the larger width. In cases where the two streets are of the same width, then the larger depth of the site will decide the frontage and open spaces. In such cases the location of a garage if provided within the open spaces shall be located diagonally opposite the point of intersections.

39.0 Roof:

- 39.1** The roof of a building shall be so constructed or formed as to ensure effectual drainage of the rainwater there from by means of sufficient rain water pipes of adequate size, whenever required so arranged, joined and fixed as to ensure that the rain water is carried away from the building without causing damage in any part of the walls or foundation of the said building or those of an adjacent buildings.
- 39.2** Rainwater from roofs and open areas on the plot shall be collected by suitable means to recharge pits and other devices. In this context reference may be made to item 5.5.12 of Part 9 "Plumbing Services Section 1: Water Supply, Drainage and Sanitation of the National Building Code of India.
- 39.3** Rainwater pipes shall be affixed to the outside of the walls of the building or in recesses or chases cut out or formed in such walls or in such other manner as may be approved by the Competent Authority.
- 39.4** Terrace of buildings shall not be subdivided and it shall have a common access.

40.0 Basements:

- 40.1** Basements may be erected within the prescribed setbacks and prescribed building lines and subject to maximum coverage on ground floor.
- 40.2** Construction of not more than one basement will be allowed. Basements shall not be used for residential purposes and used only for:

- (a) Storage of household or other goods except inflammable materials;
- (b) Dark room;
- (c) Strong room, bank cellars etc;
- (d) Air-conditioning equipment and other machines used for services and utilities of the building;
- (e) Parking on obtaining a no objection certificate from the Competent Authority.
- (f) Stack room of libraries.

40.3 Basements shall have the following requirements:

- (a) Every basement shall be in every part at least 2.4 metres in height from the floor to the underside of the slab or ceiling.
- (b) Adequate ventilation shall be provided for the basement. The standards of ventilation shall be the same as required by the particular occupancy according to byelaws. Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers or exhaust fans at the rate of one exhaust fan for 50 sq.m floor area.
- (c) The minimum height of the ceiling of any basement shall be 0.9 metres and the maximum 1.2 metres above the average surrounding ground level.
- (d) Adequate arrangement shall be made so that surface drainage or drainage water does not enter the basement.
- (e) The basement shall not be partitioned. In cases where partitions are allowed by Competent Authority and the ventilation standards as laid-down in Byelaw no **40.3 (b)** are met, the partitioning of basement may be Sanctioned, subject to the condition that no space shall be less than 50 square metres.
- (f) Adequate protection against the fire shall be provided. The roofs separating basement and floors above shall be constructed of a material like R.C.C. or of such material which will provide resistance against fire for at least two hours.
- (g) Where a basement is sanctioned in apartment houses (residential flats) and hotels, the Applicant/ Occupier shall display the basement plan at the entrance. Thimbles shall be provided in the roof of the basement and their positions clearly indicated on the plan. One fire extinguisher for every 30 square metres of basement area or part thereof shall be provided.
- (h) The walls and floors of the basement shall be water-tight and so designed that the effect of surrounding soil moisture, if any, are taken into consideration and adequate damp proofing treatment is given.

(i) In the event of atmospheric water percolating into basement necessary arrangement to drain out the same shall be provided.

(j) Kitchen, bath and water closet shall not be sanctioned in the basement unless the sewer levels allow the same and there is no chance of backflow and flooding of sewage. If sanctioned they shall be placed against the external walls of the basement (which shall also be the external walls of the building) and shall be adequately lighted and ventilated. The area of such kitchens, baths and water closets shall be counted in the FAR.

(k) A kitchen when sanctioned in the basement shall be equipped with electric ovens, stoves, gas only. No coke or fire wood will be used.

(l) The access to the basement shall be from separate from the main and alternate staircase providing access and exit from higher floors. Where the staircase is continuous the same shall be enclosed type serving as a fire separation from the basement floor and higher floors. Open ramps shall be sanctioned if they are constructed within the building line subject to suitable drainage provision

(m) In case of basements of office and commercial occupancy sufficient number of exit ways and access ways shall be provided as per norms stated in the National Building Code of India.

41.0 Chimneys

41.1 Chimneys, where provided shall conform to the requirements of I.S 1645-1960 Indian standards code of practice for fire safety of building (General) chimneys, Flues, Flue pipes and Hearths.

41.2 The chimneys shall be built at least 0.9 metres above the top of the roof provided the top chimney shall not be below the tops of adjacent parapet wall. In the case of sloping roof, the chimney top shall not be less than 0.6 metres above the ridge of the roof in which the chimney penetrates.

42.0 Lighting and ventilation of the rooms

42.1 The whole or part of one side of one or more rooms intended for human habitation and not abutting on either the front, rear or side open spaces shall abut on an interior open space whose minimum width in all directions shall be 3.0 metres in case of buildings not more than 12.5 metres in height and subject to the provision of increasing the same with increasing height @ of 0.3 metres per every meter height or part thereof beyond 12.50 metres. However, in case of buildings already constructed with 3.0 metres the open space for new construction on upper floor, the open space on this basis shall be ensured and would remain as mandatory open space.

42.2 Where the lighting and ventilation requirements are not met through daylight and natural ventilation, the same shall be ensured through artificial lighting and mechanical ventilation as per part VIII Building Services Section 1 Lighting and Ventilation of and National Building Code of India as amended

from time to time published by the Indian Standard Institution. The latest version of the National Building Code of India shall be taken into account at the time of enforcement of these bylaws.

- 42.3** The minimum aggregate area of opening of habitable room excluding doors and fixed glazing but including the frame shall be not less than 1/8th of floor area of the room.
- 42.4** The minimum aggregate area of opening of and kitchens excluding doors and fixed glazing but including the frame shall be not less than 1/6th of floor area of the kitchen.
- 42.5** No portion of a room shall be assumed to be lighted if it is more than 7.5 metres from the opening assumed for lighting of that portion of the room.
- 42.6** In lodges and hotels where attached toilets whose walls are not abutting on an external wall are provided, mechanical ventilation system should be installed as per the provisions of the National Building Code of India.

43.0 Parapets:

Parapet walls and hand rails provided on the edges of roof terrace, balcony, etc. shall not be less than 1.0 meters and not more than 1.50 meters in height. The specified height shall not apply when roof terrace is not accessible by a staircase.

44.0 Septic Tanks:

As the seepage from soak pits have lead to permanent contamination of ground water Septic tanks with soak pits shall not be sanctioned for treatment of domestic sewage; Small scale and contained sewage treatment systems are to be promoted.

- 44.1** Treated wastewater may be utilized for non-domestic purposes such as water for cooling plants, fire-fighting, flushing, gardening and suitable industrial purpose after giving necessary treatment to suit nature of use.

45.0 Boundary wall:

The requirements of the boundary wall shall be as follows:

- 45.1** The boundary wall which abuts on a street shall be permissible under these days Bye Laws of total height not exceeding 2.5 meters.

46.0 Exit Requirements

46.1 General requirements:

(a) Every building meant for human occupancy shall be provided with exits sufficient to sanction safe escape occupants in case of fire or other emergency.

(b) In every building exits shall comply with the minimum requirement of this part, except those not accessible for general public use.

- (c) All exits shall be free of obstructions.
- (d) No building shall be altered so as to reduce the number, width or protection of exits to less than that required.
- (e) Exits shall be clearly visible and the routes to reach the exit shall be clearly marked and sign posted to guide the population of floor concerned.
- (f) All exit ways shall be properly illuminated.
- (g) Firefighting equipment where provided along exits shall be suitably located and clearly marked but must not obstruct the exit way and yet there should be clear indication about its location from either side of the exit way.
- (h) Alarm devices shall be installed to ensure prompt evacuation of the population concerned through the exits, wherever required.
- (i) All exits shall provide continuous means of egress to the exterior of a building or to an exterior open space leading to a street.
- (j) Exits shall be so arranged that they may be reached without passing through another occupied unit, except in the case of residential buildings.

46.2 Types of Exits:

- (a) Exits shall be either of horizontal or vertical type. An exit may be doorway, corridor, passageways, ramp, internal staircase or external staircase, to an internal or external open area, verandah and/or terraces which have access to the street or to roof of a building.
- (b) An exit may also include a horizontal exit leading to an adjoining building at the same level; and
- (c) Lifts, escalators and revolving doors shall not be considered as exits.

46.3 Number and Size of Exits: The requisite number and size of various exits shall be provided, based on the population in each room, area and floor based on the occupant load, capacity of exits, travel distance and height of buildings

- (a) **Arrangement of Exits:** Exits shall be so located so the travel distance on the floor shall not exceed 22.5 m for residential, educational, institutional and hazardous occupancies and 30 m for assembly, business, mercantile, industrial and storage occupancies. Whenever more than one exit is required for a floor of a building, exits shall be placed as remote from each other as possible. All the exits shall be accessible from the entire floor area at all floor levels.

The travel distance to an exit from the remote point shall not exceed half the distance as stated above except in the case of institutional occupancy wherein it shall not exceed 6 metres.

(b) Occupant Load: The population in rooms, areas of floors shall be calculated based on the occupant load given in Table 9.0.

Table 9.0: Occupant Load for various Occupancy Types

| S N | Group of Occupancy | Occupant Load Gross Area* in square metre / person |
|---|--|--|
| 1.0 | Residential | 12.5 |
| 2.0 | Educational | 4.0 |
| 3.0 | Institutional | 15+ |
| 4.0 | Assembly | |
| 4.1 | with fixed or loose seating and dance floors | 6++ |
| 4.2 | without seating facilities and dining rooms | 1.5++ |
| 5.0 | Mercantile | |
| 5.1 | street floor and sales basement | 3.0 |
| 5.2 | upper sale floors | 6.0 |
| 6.0 | Business and Industrial | 10.0 |
| 7.0 | Storage | 30.0 |
| 8.0 | Hazardous | 10.0 |
| * The gross area shall mean plinth or covered area. | | |
| + Occupant load in dormitory portions of homes for the aged, orphanages, insane asylums, etc. where sleeping accommodation is provided, shall be calculated at not less than 7.5 square metre gross area per person. | | |
| ++ The area shall include, in addition to the main assembly room or space, any occupied open connection or space in the same storey or in the storeys above or below, where entrance is common to such rooms and spaces and they are available for use by the occupants of the assembly place. No deductions shall be made in the gross area for corridors, closets or other subdivisions; one area shall include all space serving the particular assembly occupancy | | |

(c) Capacity of Exits: The capacity of exits (doors and stairways) indicating the number of persons of that could be safely evacuated through a unit exit width of 0.5 metre shall be as given in Table 10.0

Table 10.0: Number of Occupants per Unit Exit Width

| S N | Group of Occupancy | Number of Occupants | | |
|-----|--------------------|---------------------|-------|-------|
| | | Stairways | Ramps | Doors |
| 1.0 | Residential | 25 | 50 | 75 |
| 2.0 | Educational | 25 | 50 | 75 |
| 3.0 | Institutional | 25 | 50 | 75 |
| 4.0 | Assembly | 40 | 50 | 60 |
| 5.0 | Business | 50 | 60 | 75 |
| 6.0 | Mercantile | 50 | 60 | 75 |
| 7.0 | Industrial | 50 | 60 | 75 |
| 8.0 | Storage | 50 | 60 | 75 |
| 9.0 | Hazardous | 25 | 30 | 40 |

(d) Notwithstanding the detailed provision for exits as per Bye-law No. 46.3

(c) the minimum width provision for each stairway shall be as per Table 11.0

Table 11.0: Minimum Staircase Width

| S N | Group of Occupancy | Width in metres |
|-----|---|-----------------|
| 1.0 | Residential Building upto 3 storey height | 0.9 |
| 2.0 | Other residential buildings, hostels and guest houses | 1.2 |
| 3.0 | Auditoriums, theatres and cinema | 1.5 |
| 4.0 | All other buildings | 1.25 |
| 5.0 | Hospitals | 2.0 |
| 6.0 | Schools and colleges | 1.5 |

(e) Notwithstanding the detailed provision for exits as per Bye-laws No. 46.3 (c) & (d) the minimum width provision for passageways shall be as per Table 12.0.

Table 12.0: Minimum Passageway Width

| S N | Group of Occupancy | Width in metres |
|-----|---|-----------------|
| 1.0 | Residential Building upto 3 storey height | 0.9 |
| 2.0 | Other residential buildings, hostels and guest houses | 1.25 |
| 3.0 | Auditoriums, theatres and cinema | 1.5 |
| 4.0 | All other buildings | 1.2 |

46.4 Doorways.

(a) Every exit doorway shall open into an enclosed stairway, a horizontal exit, on corridor or passageway providing continuous and protected means of egress:

(b) No exit doorway shall be less than 1.0 metres in width. Doorways shall be not less than 2.0 metres in height. Doorways for bathrooms, water closet stores etc. shall not be less than 0.75 metres wide.

(c) Exit doorways shall open outwards, that is, away from the room but shall not obstruct the travel along any exit. No door, when opened, shall reduce the required width of stairway or landing to less than 0.90 metres. Overhead or sliding doors shall not be installed.

(d) Exit door shall not open immediately upon a flight of stairs. A landing equal to at least the width of the door shall be provided in the stair way at each doorway. Level of landing shall be the same as that of the floor which it serves.

(e) Exit doorways shall be open-able from the side which they serve without the use of a key.

(f) Revolving doors shall not be allowed.

46.5 Stairway:

(a) For assembly, business, educational, hazardous, industrial, mercantile, multi-storey and public buildings there shall be a minimum of two staircases and one of them shall be an enclosed stairway and the other shall be on the external wall of the building and shall open directly to the exterior, interior open space or to any open space for safety. Single staircase may be accepted for educational, business or residential building where floor area does not exceed 300 square metre and height of building does not exceed 24 metre and other requirements of occupant load, travel distance and width of staircase shall meet the requirement. The single staircase in such cases shall be on the outer wall of the building.

(b) Internal stairs shall be constructed of non-combustible materials throughout;

(c) Internal stairs shall be constructed as a self contained unit with at least one side adjacent to an external wall and shall be completely enclosed;

(d) The minimum width of an internal staircase shall be 1 metre subject to provisions of Table 11.0. Columns and other building features shall not reduce the width of the staircase.

(e) The minimum width of treads without nosing shall 250 millimeter for an internal staircase for residential buildings. In the case of other buildings the minimum tread shall be 300 millimeter. The treads shall be constructed and maintained in a manner to prevent slipping.

(f) The maximum height of riser shall be 190 millimeter in the case of residential buildings and 150 millimeter in the case of other buildings. They shall be limited to 12 per flight.

(g) Handrails shall be provided with a minimum height of 0.9 metres from the centre of the tread;

(h) The minimum head room in a passage under the landing of a staircase and under the staircase shall be 2.2 metres. Beams and other building features shall not reduce the head room of the staircase.

(i) No living space, store or other fire exits shall open directly into the stairwell of the staircase.

(j) The external exit door of the staircase enclosure at ground level shall open directly to the open spaces or should be reached without passing through any door other than a door provided to from a draught lobby.

(k) The main staircase and fire escape shall be continuous from ground floor to the terrace level.

(l) No electrical shafts/AC ducts or gas pipe etc. shall pass through the staircase.

- (m) Lift shall not open in staircase landing.
- (n) No combustible material shall be used for any surface decoration in the staircase.
- (o) A staircase shall not be arranged round a lift shaft.
- (p) The exit sign with arrow indicating the way to the escape route shall be provided at a suitable height from the floor level on the wall and shall be illuminated by electric light connected to corridor circuits. All exit way marking signs of suitable size should be flushed with the wall and so designed that no mechanical damage shall occur to them due to moving of furniture or other heavy equipments. Further all landings of floor shall have floor indication boards indicating the number of floor as per bye-law. The floor signage indicator shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of size not less than 0.2 metre X 0.5 metre.
- (q) In case of single staircase it shall terminate at the ground floor level and the access to the basement shall be by a separate staircase. However, the second staircase may lead to basement levels provided the same is separate at ground level by either a ventilated lobby with discharge points at two different ends or through enclosures.

46.6 Fire Escapes or External Stairs

- (a) Fire escapes shall not be taken into account in calculating the evacuation time of a building.
- (b) All fire escapes shall be directly connected to the ground.
- (c) Entrance to fire escape shall be separate and remote from the internal staircase.
- (d) The route to fire escape shall be free of obstructions at all times, except a doorway leading to the fire escape which shall have the required fire resistance.
- (e) Fire escape shall be constructed of non-combustible materials.
- (f) Fire escapes stairs shall have straight flight not less than 0.75 metre wide with 250 millimeter treads and risers not more than 190 millimeter. The number of risers shall be limited to 16 per flight.
- (g) Handrails shall be of a height not less than 0.90 metre.

46.7 Ramps

- (a) Ramps with a slope of not more than 1 to 10 may be substituted for and shall comply with all the applicable requirements of required stairways as to enclosure capacity and limiting dimensions Ramps shall be surfaced with approved non-slipping materials.

(b) The minimum width of the ramps in hospitals shall be 2.25 metres;

(c) Handrails shall be provided on both sides of the ramp;

(d) Ramps shall lead directly to outside open space at ground level or courtyard or safe place.

46.8 Corridors

(a) The minimum width of a corridor shall not be less than 75 centimetres in the case of 2 storey row housing residential building. For all other and buildings minimum width shall be calculated based on the provision of Table 11.0.

(b) In case of more than one main staircase of the building interconnected by a corridor or other enclosed space there shall be at least one smoke stop door across the corridor or enclosed space between the doors in the enclosing walls of any two stair cases.

47.0 Facilities in the public building for the disabled persons:

These bye-laws are applicable to all buildings, recreation areas and facilities used by public. It does not apply to private domestic residences.

47.1 Site planning:

Level of the roads, access paths and parking areas shall be described in the plan along with specification of materials. Every building should have at least one access to main entrance/exit to the disabled which shall be indicated by proper signage. This entrance shall be approached through a ramp together with stepped entry. The ramp should have a landing after every 9 metre run and in front of the doorway. Minimum size of landing shall be 1.0 x 2.0 metre.

47.2 Access path/walk way:

Access path from plot entry and surface parking to building entrance shall be a minimum of 1.8 metre wide having even surface without any step. Slope, if any shall not have gradient greater than 5%. Selection of floor material shall be made suitably to attract or to guide visually impaired persons (limited to floor material whose color texture is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons. Finishes shall have a non-slip surface with texture traversable by a wheel chair. Curbs wherever provided should blend to common level.

47.3 Parking:

For parking of vehicles of disabled people the following provisions shall be made:

(a) Surface parking for two Equivalent Car Spaces (ECS) shall be provided near entrance for the physically handicapped persons with maximum travel distance of 30 metre from building entrance.

(b) The width of parking bay shall be minimum 3.6 metre.

(c) The information stating that the space is reserved for wheel chair users shall be conspicuously displayed.

(d) Guiding floor materials shall be provided or a device which guides visually impaired persons with audible signals or other devices which serves the same purpose shall be provided.

47.4 Building Requirements:

The specified facilities for the buildings for disabled persons shall be as follows:

(a) Approach to plinth level.

(b) Corridor connecting the entrance exits for the handicapped.

(c) Stair-ways.

(d) Lift.

(e) Toilet.

(f) Drinking water.

(g) Braille signage shall be provided at the above specified facilities.

47.5 Approaches to Plinth Level:

(a) Ramp shall be provided with non-slip material to enter the building minimum clear width of ramp shall be 1.8 metre with maximum gradient 1: 12, between top and bottom of the ramp. Length of ramp shall not exceed 9.00 meters having 0.8 metre high handrail on both sides extending 300 millimeter beyond the ramp. Minimum gap from the adjacent wall to the handrail shall be 50 millimeter.

(b) Minimum clear opening for the entrance door shall be 1.0 metre. Threshold shall not be raised more than 12 millimeter.

(c) For stepped approach, size of tread shall not be less than 300 millimeter and maximum riser shall be 150 millimeter. Provision of 0.8 metre high handrails on both sides of the stepped approach similar to the ramped approach shall be made.

47.6 Corridor connecting the entrance/exit for the disabled:

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

(a) Guiding floor materials shall be provided or devices that emit sound to guide visually impaired persons.

(b) The minimum width shall be 1.5 metre.

(c) In case there is a difference of level, slope ways shall be provided with a slope of 1:12.

(d) Handrails shall be provided for ramps/slope ways.

47.7 Stairways:

Stairways with open riser and provision of nosing shall not be sanctioned.

47.8 Lifts:

Whenever lift is required as per bye-laws, provisions of at least one lift shall be made for the wheel chair user with the following car dimensions of lift recommended for passenger lift for 13 person's capacity by Bureau of Indian Standard.

(a) Clear internal depth minimum of 1.1 metre.

(b) Clear internal width minimum of 2.0 metre. Entrance door width shall be 0.91 metre.

(c) A handrail not less than 0.6 metre long at 0.9 metre above floor level shall be fixed adjacent to the control panel.

(d) The lift lobby shall be of an inside measurement of 1.8 metre x 2.0 metre or more.

(e) The Braille signage will be posted outside the lifts.

(f) Operational details of lifts shall conform to the National Building Code of India and will be the responsibility of designer as well as manufacturer.

47.9 Toilets:

One special water closet in a set of toilet shall be provided for the use of handicapped with essential provision of washbasin near the entrance for the handicapped.

(a) The minimum size shall be 1.5 metre x 1.75 metre.

(b) Minimum clear opening of the door shall be 0.9 metre and the door shall swing or sliding type.

(c) Suitable arrangement for vertical/horizontal handrails with 50 millimeter clearance from wall shall be made in the toilet.

(d) The water closet seat shall be 0.5 metre from the floor.

47.10 Refuge:

An alternative to immediate evacuation of a building via staircases and/or lifts is the movement of disabled persons to areas of safety within a building. If

possible, they could remain there until the fire is controlled and extinguished or until rescued by fire fighters.

(a) A refuge area may be provided at the fire protected stair landing on each floor that can safely hold one or two wheelchairs.

(b) The area shall have doorways with clear opening width of 900 mm and

(c) The area shall have an alarm switch installed between 900 mm and 1200 mm from the floor level.

48.0 Landscaping

48.1 Institutional, Industrial, Commercial and Group Housing complexes shall be required to plant a minimum number of trees as per Table 13.0.

Table 13.0: Number of trees to be planted.

| S N | Plot area (square metre) | No of trees required | Minimum open space for soft landscaping |
|-----|--------------------------|---|--|
| 1 | Upto 2000 | One tree per 80 square metre of open space out of which minimum 50% trees to be in the category of evergreen trees having height of 6.0 metres or more | 25% of open area. In case of industrial plots no soft landscaping is required. |
| 2 | From 2001 to 12000 | One tree per 80 square metre of open space out of which minimum 50% trees to be in the category of evergreen trees, having height of 9.0 metres or more | 25% of the open area. |
| 3 | More than 12000 | One tree per 80 square metre of open space out of which minimum 50% trees to be in the category of evergreen trees having height of 12.0 metres or more | 25% of the open area. |

48.2 A detailed landscape plan will have to be got approved from the Competent Authority with specifications.

48.3 Norms for planting in residential plots belonging to individual shall be as follows:

(a) Minimum of one tree in every plot for plot size up to 100 square metre.

(b) Minimum of two trees in every plot for plot size 100 to 500 square metre.

(c) Minimum of three trees in every plot for plot size above 500 square metre.

(d) All selected trees should not be less than 3.6 m in height and should be suitable for local climate.

MODEL BUILDING BYELAWS - 2016, For DELHI CANTONMENT AREA

PART IV: REQUIREMENTS OF SPECIFIC BUILDING TYPES

49.0 Educational Buildings – Schools, Colleges and Other Institutions of Higher Learning

49.1 Development controls for School Buildings shall be as per Table 14.0

Table 14.0: Development controls for School Buildings

| S N | Category | Plot size in square metre | Maximum | |
|--|----------------------------------|------------------------------|--------------------|-----|
| | | | Ground coverage | FAR |
| 1 | Nursery School | 300 - 500 | 33.3% | 100 |
| 2 | Primary School | 2000 - 4000 | 30% | 120 |
| 3 | Senior Secondary School | 6000 - 8000 | 35% | 150 |
| 4 | School for mentally challenged | 2000 | 50% | 120 |
| 5 | School for physically challenged | 2000 | 50% | 120 |
| Height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations. | | | | |

49.2 Development controls for Colleges and Other Institutions of Higher Learning shall be as per Table 15.0

Table 15.0: Development controls for Colleges and Other Institutions of Higher Learning

| S N | Category | Plot size in square metre | Maximum | |
|---|---|------------------------------|--|-----|
| | | | Ground coverage | FAR |
| 1 | Vocational Training Centre (ITI, Polytechnic, Vocational, and Management and Teacher Training Institute) and Research and Development training centre | 4000 | 35% | 150 |
| 2 | General College | As per UGC | 35% | 150 |
| 3 | Professional College - Technical | As per AICTE | 35% | 150 |
| Upto 15% of maximum FAR in 1, 2 and 3 can be utilized for residential use of essential staff and student accommodation | | | | |
| 4 | University Campus where total plot area is more than 10 hectares shall be divided into 4 parts with distinct governing regulations | | | |
| 4.1 | Academic including administration | 45% of plot | 35% | 120 |
| 4.2 | Residential | | Group housing norms as per Byelaw No. 54.0 | |
| 4.3 | Sports and cultural activities | 15% of plot | 10% | 15 |
| 4.4 | Parks and landscape | 15% of plot | Not applicable | |
| In all cases height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations. | | | | |

- 49.3** In a School building a minimum of 1.0 square metre of net floor space per student shall be provided. For calculation of this net floor space the assembly hall, class room for cookery, class room for manual instruction, drawing or science laboratory will not be counted. The number of students a building shall be calculated on this basis for the purpose of occupancy calculation.
- 49.4** In a School building the minimum size of a classroom shall be 5.5 m x 4.5 m and no part of any classroom shall be more than 7.5 m away from the external wall from which light and ventilation is being drawn.
- 49.5** In a School building a room of adequate size for recreation purpose should also be provided.
- 49.6** In case of schools for physically and mentally challenged 20% of maximum FAR can be utilized for residential use of staff and student accommodation.
- 49.7** Each classroom and other teaching learning spaces shall have minimum light and ventilation to the extent of $1/5^{\text{th}}$ of its floor area.
- 49.8** Every assembly room and gymnasium shall have a clear height of 3.6 m with a minimum height of 3.0 m under beams. Every classroom shall have a clear height of 3.0 m with a minimum height of 2.75 m under beams.
- 49.9** In an educational building no basement shall be provided for the purpose of classrooms or any other instruction or teaching purpose.
- 49.10** Every educational building, exceeding two storey shall be constructed of fire resisting material throughout.
- 49.11** A playground of an adequate size should be provided depending on the student strength of the educational institution.
- 49.12** Adequate parking as per Byelaw no. **26.0** shall be provided. In the case of school buildings the front boundary wall shall be recessed by 6 metres to accommodate visitor parking within setback area.
- 49.13** Use of treated waste water shall be as per Bye law No. **44.1**
- 49.14** Exit requirements shall be as per Byelaw no. **46.0**
- 49.15** All suitable facilities required by the disabled shall be provided in educational buildings as per Byelaw no. **47.0**
- 49.16** Landscaping shall be as per Bye law No. **48.0**
- 49.17** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**
- 49.18** An adequate number of water-closets, urinals and provision of drinking water should be provided as stated in Table 25.0 for all educational buildings

50.0 Assembly buildings like Cinema, Auditoriums and Exhibition / Multipurpose Halls

50.1 Development controls for assembly buildings shall be as per Table 16.0.

Table 16.0: Development controls for assembly buildings

| S N | Category | Plot size in square metre | Maximum | |
|--|---|--|-----------------|-----|
| | | | Ground coverage | FAR |
| 1 | Multipurpose hall for banquets, exhibitions and community purpose | 800 - 2000 | 30% | 120 |
| 2 | Cinema, Auditorium, Music, Dance and Drama Halls | As per decision of Competent Authority | 35% | 120 |
| Height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations. | | | | |

50.2 A plot for the Cinema Theatre shall not be less than 0.4 hectares outside Civil Area and 0.2500 hectares in Civil Area.

50.3 For Cinema Theatres the relevant provisions of the Cinematic Acts/Rules of the particular State and IS:4878 and other relevant codes relating to Cinema Theatres as well as provisions of the National Building Code of India shall apply

50.4 For calculation of user population of water closets and urinals occupant load shall be as per Table 9.0.

50.5 An adequate number of water-closets, urinals and drinking water facilities should be provided as stated in Table 33.0

50.6 Such toilets shall be in an accessible location and shall be provided with sign boards indicating their purpose and the sex for which they are meant.

50.7 Multistoried theatres may be allowed provided each theatre so constructed conforms to the provisions of these bye laws separately. However, the total number shall be restricted to two in one building. For such theatre an adequate size of staircase, balconies and foyers shall be provided for the comfort of the audience and shall be in keeping with the Fire Safety norms of the National Building Code of India.

50.8 Seating capacity shall be 0.46 sq. metre per seat exclusive of common passage.

50.9 The acoustic design with calculation and details along with the architectural design shall be submitted to the Competent Authority.

50.10 Architectural details drawn to the scale of 1:50 in addition to the plans shall be submitted to the Competent Authority and be subjected to his approval.

- 50.11** If any portion of the building (except accommodation for caretaker and his family) is intended to be used as a domestic building such portion shall comply with all the requirements of a domestic building.
- 50.12** The building application for construction of cinema theatre shall be entertained only after the applicant has obtained necessary permission of the appropriate authorities as per law for the time being in force.
- 50.13** Adequate parking as per Byelaw no. **26.0** shall be provided.
- 50.14** Use of treated waste water shall be as per Bye law No. **44.1**
- 50.15** Exit requirements shall be as per Byelaw no. **46.0**
- 50.16** All suitable facilities required by the disabled shall be provided in assembly buildings as per Byelaw no. **47.0**
- 50.17** Landscaping shall be as per Bye law No. **48.0**
- 50.18** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**

51.0 Community buildings

- 51.1** Development controls for assembly buildings shall be as per Table 17.0.

Table 17.0: Development controls for Community Buildings

| S N | Category | Plot size in square metre | Maximum | |
|--|--|---|--------------------|-----|
| | | | Ground coverage | FAR |
| 1 | Recreational Club | 2000 - 5000 | 25% | 100 |
| 2 | Science Centre | As per decision of Competent Authority | 30% | 120 |
| 3 | International Convention Centre | As per decision of Competent Authority | 30% | 120 |
| 4 | Old age home, Hostel for working women, Care centre for physically and mentally challenged, Adult education centre and Orphanage | 1000 | 30% | 120 |
| 5 | Religious building at local level | As per decision of Competent Authority | 35% | 70 |
| 6 | Religious building at community level | | 25% | 50 |
| 7 | LPG godown including booking office | 300 - 600 | 30% | 100 |
| Height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations. | | | | |

- 51.2** No mosque, temple, church, or other sacred or religious building shall be erected
(a) Unless the frontage is at least 6 metres from the centre of the street on which it abuts
(b) Unless it is situated at a distance of not less than 100 metres from any other sacred religious building and the local civil authorities have been consulted regarding the suitability of the proposed location.
- 51.3** A religious building shall have maximum height of 15 metres including all vertical projections of religious nature on the roof-line.
- 51.4** LPG godown shall be located away from residential and recreational areas.
- 51.5** Milk booths and vegetable-cum-milk booths of sufficient number shall be located in residential areas. These shall be of standard design duly approved by the Competent Authority.
- 51.6** Adequate parking as per Byelaw no. **26.0** shall be provided.
- 51.7** Use of treated waste water shall be as per Bye law No. **44.1**
- 51.8** Exit requirements shall be as per Byelaw no. **46.0**
- 51.9** All suitable facilities required by the disabled shall be provided in assembly buildings as per Byelaw no. **47.0**
- 51.10** Landscaping shall be as per Bye law No. **48.0**
- 51.11** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**

52.0 Commercial Centers

- 52.1** The Development Controls for Commercial Centre shall be as per Table 18.0

Table 18.0: Development Controls for Commercial Centers

| S N | Category | Plot Area in square metres | Maximum | | |
|-----|--|----------------------------------|--------------------|-----|--------|
| | | | Ground coverage | FAR | Height |
| 1 | Large Commercial Center | 40000 | 25% | 125 | * |
| 2 | Local Shopping Center | 3000 | 40% | 100 | 15 |
| 3 | Convenience Shopping Center | 1000 | 40% | 100 | 15 |
| 4 | Service Markets | 1000 | 40% | 100 | 15 |
| | * In case of Large Commercial Centers height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations. | | | | |

- 52.2** In the case of Large Commercial Center and Local Shopping Center an addition of 10% ground coverage shall be permitted when an atrium is provided. However in such cases 25% of the this additional ground coverage shall be counted towards FAR
- 52.3** Facilities that can be provided in Large Commercial Centers shall include retail shopping, stockists and dealers of medicines, commercial offices, cinemas, Cineplex, hotels, service apartments, restaurants, banquet halls, guest house, nursing home, dispensary, clinical laboratories, clinics and polyclinics, coaching canter, training institutes, police post, post office, petrol pump, repair services, banks, ATM and multi level parking.
- 52.4** Facilities that can be provided in Local Shopping Centers shall include retail shopping, stockists and dealers of medicines, commercial offices, clinical laboratories, clinics and polyclinics, repair services, banks and ATM.
- 52.5** Facilities that can be provided in Convenience Shopping Centers shall include retail shopping, local level service activities, repair shops, offices up to 125 square metres in size, banks, ATM, informal trades and restaurant.
- 52.6** Adequate parking as per Byelaw no. **26.0** shall be provided.
- 52.7** Use and requirements of basements shall be as per Byelaw no. **40.0**
- 52.8** Use of treated waste water shall be as per Bye law No. **44.1**
- 52.9** Exit requirements shall be as per Byelaw no. **46.0**
- 52.10** All suitable facilities required by the disabled shall be provided in assembly buildings as per Byelaw no. **47.0**
- 52.11** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**
- 52.12** Adequate water-closets, urinals and drinking water facilities should be provided depending on building type as per Tables 26.0, 29.0 and 30.0

53.0 Health Facilities

- 53.1** The Development Controls for Health Facilities shall be as per Table 19.0

Table 19.0: Development Controls for Health Facilities

| S N | Category | Plot Area in hectares | Maximum | |
|-----|--|--------------------------|--------------------|-----|
| | | | Ground coverage | FAR |
| 1 | Hospital with over 500 beds | 2.5 – 4.5 | 30% | 200 |
| 2 | Hospital: 200 – 500 beds | 1.5 – 2.5 | | |
| 3 | Hospital: 100 – 200 beds | 0.5 – 1.0 | | |
| 4 | Hospital: up to 100 beds | 0.25 – 0.5 | | |
| | For all hospitals an additional 5% ground coverage shall be permitted for multi-level parking. | | | |

| | | | | |
|---|--|-------------|-----|-----|
| 5 | Maternity home, Nursing home and Polyclinic | 0.1 – 0.2 | 30% | 150 |
| 6 | Dispensary | 0.08 – 0.12 | | |
| 7 | Family welfare, Pediatric, Geriatric and Diagnostic Centre | 0.05 – 0.08 | | |
| 8 | Veterinary Hospital | 0.2 | | |
| 9 | Veterinary Dispensary | 0.09 | 35% | 100 |

- 53.2** Height restriction for all health facility building shall be subject to approval of AAI, Fire regulations and other statutory regulations.
- 53.3** The plot area for provision of a hospital building shall be worked out on the basis of 100 square metres of built up area per bed.
- 53.4** The plot area for provision of health facilities like maternity home, nursing home, family welfare and other centres shall be worked out on the basis of 60 square metres of built up area per bed.
- 53.5** In case of super-specialty medical facilities or hospitals duly certified as such by Competent Authority plot area for provision of a hospital building shall be worked out on the basis of 125 square metres of built up area per bed.
- 53.6** In hospital with 100 beds or more up to 15% of the maximum FAR can be utilized for residential use of essential staff.
- 53.7** In hospital with 100 beds or more up to 10% of the maximum FAR can be utilized for dormitory or hostel accommodation of attendants of patients.
- 53.8** In every hospital a maximum of up to 300 square metres of floor area except from FAR shall be allowed to be used for community space, religious shrine, crèche, chemist shop, bank counter etc.
- 53.9** Proper arrangement of disposal of hospital waste shall be made to meet environmental standards set up by Competent Authority from time to time.
- 53.10** Adequate parking as per Byelaw no. **26.0** shall be provided.
- 53.11** Use and requirements of basements shall be as per Byelaw no. **40.0**
- 53.12** Use of treated waste water shall be as per Bye law No. **44.1**
- 53.13** Exit requirements shall be as per Byelaw no. **46.0**
- 53.14** All suitable facilities required by the disabled shall be provided in assembly buildings as per Byelaw no. **47.0**
- 53.15** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**

53.16 An adequate number of water-closets, urinals and drinking water facilities should be provided as stated in Tables 27.0, 28.0 and 32.0

54.0 Group Housing on Residential plots

- 54.1** All Residential Group Housing Projects shall conform the following norms
- (a) Minimum size of plot - 3000 square metres;
 - (b) Maximum ground coverage - 33.33%;
 - (c) Maximum FAR – 200.
 - (d) Maximum height –as per Bylaw no. **25.0**
- 54.2** The upper limit of density to be taken as 200 dwelling units per hectare with flexible dwelling unit size to achieve optimum utilization of land. Public Housing for the Economically Weaker Section shall be designed with a density of 900 dwelling units per hectare (+_ 15% variation permissible)
- 54.3** In every group housing project flats with a carpet area of 25 to 40 square metres shall be provided for community-service personnel. The total FAR of this component shall be 15% of the total permissible FAR. However, this additional number of units and the addition FAR shall be over and above By law nos. **54.1(c)** and **54.2**.
- 54.4** Additional FAR amounting to a minimum of 400 sqm or at the rate of 0.6% of permissible FAR shall be allowed free from FAR calculations to cater to community needs such as community/recreational hall, crèche, library, reading room, senior citizen recreation room/club and office.
- 54.5** Plots for group housing should be located on roads facing a minimum right of way of 18 metres.
- 54.6** In case of low-rise high-density housing without lifts maximum ground coverage permissible shall be 40%.
- 54.7** If the building is constructed with stilt area of non-habitable height and is proposed to be used for parking, landscaping etc., the stilt floor shall not be included in FAR.
- 54.8** Requirements of Basements shall be as per byelaw no. **40.0**. In addition:
- (a) Basement/s shall be sanctioned up to the building envelope line. When basement area requirement exceeds area of the building envelope, the area over and above the said building envelope may be taken as a lower basement.
 - (b) Basement area outside the ground coverage and below stilts is to be flushed with the ground and is to be ventilated with mechanical means of ventilation. The roof slab of the basement in such cases shall be designed to take the load of the fire tender.

(c) In case basement is provided below the stilt floor for purposes of parking, servicing etc., the same shall be flushed with ground level and provided with a mechanical means of ventilators and shall not be included in the FAR.

54.9 Parking Norms shall be as per Bye law No. **26.0**

54.10 Use of treated waste water shall be as per Bye law No. **44.1**

54.11 Exit requirements shall be as per Bye law No. **46.0**

54.12 All suitable facilities required by the disabled shall be provided in residential group housing buildings as per Byelaw no. **47.0**.

54.13 Landscaping shall be as per Bye law No. **48.0**

54.14 Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as Byelaw no. **67.0**

55.0 Industrial buildings such as Factories and Workshops:

55.1 Development controls for Industrial building shall be as per Table 20.0

Table 20.0: Development controls for Industrial buildings

| S N | Plot Area (in square metres) | Maximum | | | Activities Sanctioned |
|-----|------------------------------|-----------------|-----|-------------|--|
| | | Ground coverage | FAR | Height in m | |
| 1.1 | Up to 50 | 100% | 200 | 8 | Administrative office & sales outlet upto 10% of floor area on ground floor. Residential accommodation @ 5% of area of floor upto a maximum of 50 sqm for watch and ward staff |
| 1.2 | 51 – 400 | 60% | 180 | 15 | |
| 1.3 | Above 400 | 50% | 150 | 15 | |

55.2 The relevant provisions contained in the Factory Act 1948 shall apply for the construction of factory buildings.

55.3 The minimum internal height of workrooms occupied by workers for manufacture shall not be less than 4.5 metres measured from the floor level to the lowest point in the ceiling; this bye-law shall not apply to room/s intended for storage.

55.4 In case of small factories employing less than 50 workers the minimum height of workrooms occupied by workers for manufacture shall not be less than 3.66 metre.

55.5 An adequate number of water-closets, urinals and drinking water facilities should be provided as stated in Table 31.0

55.6 Adequate parking as per Table 8.0 shall be provided.

55.7 Notwithstanding the exit requirements as per Byelaw no. **46.0**

- (a) Each working room shall be provided with adequate number of exits not less than two in number.
- (b) No exit shall be less than 1.2 metre in width and 2.1 metre in height and doors of such exit shall be so arranged that it can be opened easily from inside.
- (c) No staircase, lobby or corridor shall be less than 1.2 metres in width.

- 55.8** At all times there shall be a provision for each person employed in any room of the factory at least 3.5 square metre of floor space exclusive to that occupied by the machinery and a breathing space of at least 15 cubic metre. In addition the provisions of Part VIII Section 1 – Lighting and Ventilation of National Building Code of India (with amendments time to time) shall be followed.
- 55.9** The industrial and biological effluent shall be treated and shall be of quality to the satisfaction of the Competent Authority before letting out the same into a watercourse.
- 55.10** Use of treated waste water shall be as per Bye law No. **44.1**
- 55.11** All suitable facilities required by the disabled shall be provided in industrial buildings as per Byelaw no. **47.0**
- 55.12** Landscaping shall be as per Bye law No. **48.0**
- 55.13** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as Byelaw no. **67.0**

56.0 Go-downs for storing materials like grain, oil and cloth.

- 56.1** Such building should have a minimum plinth height of 0.6 metres. The floor shall be of impervious finish.
- 56.2** The roof height of the go-down should not be less than 4.0 metres above the floor level.
- 56.3** The provisions for ventilation should not be less than 1/20th of the floor area of the storage hall.
- 56.4** Go-down walls shall be well constructed such that dampness is prevented.
- 56.5** Toilet Requirements
- (a) For purpose of determining number of water-closet and urinals 27.87 square metres of the gross floor space of such buildings shall be deemed to be occupied by one person;
 - (b) In every such building there shall be provided one water closet for every 50 males or part thereof and one water closet for every 50 females or part thereof, thereafter water-closet shall be provided at the rate of one closet for every 70 persons;

(c) In every such building there shall be provided one urinal for every 100 persons of each sex or part thereof;

(d) Water closet and urinals shall be accessible and shall be provided with sign plate indicating their purpose and sex for which they are meant for.

(e) In each go-down adequate number of Fire-Extinguishers, buckets with sand etc. will be provided as prescribed by the Competent Authority.

56.6 Exit requirements shall be as per Byelaw no. **46.0**

56.7 Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as per Byelaw no. **67.0**

57.0 Fuel Stations including CNG

57.1 All new fuel stations shall have a minimum plot dimension of 30x36 metres and a maximum of 33x45 metres in the case of fuel stations with petrol and diesel pumps.

57.2 In the case of fuel stations with CNG pumps the minimum plot size shall be 75x40 metres.

57.3 The maximum ground coverage shall be 20% and the maximum permissible FAR shall be 40.

57.4 A maximum of 10% of permissible FAR shall be permitted for non-inflammable, non-hazardous commercial activities subject to payment of charges as decided by the Competent Authority from time to time.

57.5 In case of existing fuel stations the provision of Byelaw no. **57.4** would be permissible only if the fuel station in question meets the provisions of Byelaw nos. **57.1, 57.2, 57.6 & 57.7**

57.4 The maximum building height shall be 6 metres.

57.5 In case a plot is larger than the size prescribed in Byelaw no. **57.1** and **57.2** FAR and ground coverage shall be as applicable as the maximum plot size of 33x45 metres. The remaining area of the plot shall be maintained as open green space by the Applicant.

57.6 They shall be located on roads with a minimum right of way of 30 metres.

57.7 The minimum distance of plot from the road intersections shall be as follows:
(a) For minor roads having less than 30 metres right of way – 50 metres.

(b) For roads of right of way 30 metres or more – 100 metres.

(c) Frontage of plots should not be less than 30 metres.

- 57.8** The land between the existing right of way boundary and the property line of the proposed station will be maintained as green buffer. No construction will be allowed in this area except approach roads to the outlet.
- 57.9** A canopy of area equal to the ground coverage shall be permitted and this shall be within the building setback line.
- 57.10** Minimum setbacks shall be regulated according to the standard design as approved by the Competent Authority and the Fire and Explosive Safety Agencies.
- 57.11** The normative design of fuel stations shall conform to the approved standard designs of oil companies as approved by the Competent Authority from time to time.

58.0 Hostel /Guest House /Lodging and Boarding House /Dharamshala

- 58.1** The following Development Controls shall apply for these building types:
- (a)** Minimum plot size shall be 500 square metres
 - (b)** Maximum permissible ground coverage shall be 30%
 - (c)** Maximum permissible FAR shall be 120.
 - (e)** Height restriction shall be subject to approval of AAI, Fire regulations and other statutory considerations.
- 58.2** Parking shall be provided @ 2 ECS per 100 square metres of built up area.
- 58.3** Use of treated waste water shall be as per Bye law No. **44.1**
- 58.4** Exit requirements shall be as per Bye law No. **46.0**
- 58.5** All suitable facilities required by the disabled shall be provided as per Byelaw no. **47.0**
- 58.6** Landscaping shall be as per Bye law No. **48.0**
- 58.7** Requirements of water supply as per Byelaw No. **66.0** shall be met. Rainwater harvesting and regulations for ground water shall be as Byelaw no. **67.0**
- 58.8** An adequate number of water-closets, urinals and drinking water facilities should be provided as stated in Table 26.0.

59.0 Buildings for Fire Safety

- 59.1** The Development Controls for Fire shall be as per Table 21.0

Table 21.0: Development Controls for Fire Safety Building

| S N | Category | Plot Area in hectares | Maximum | |
|---|---------------------------------|--------------------------|--------------------|-----|
| | | | Ground coverage | FAR |
| 1 | Fire Post | 0.2 | 30%** | 120 |
| 2 | Fire Station | 1.0 | | |
| 3 | Disaster Management Centre | 1.0* | | |
| 4 | Fire Training College/Institute | 3.0 | | |
| <p>* An additional 2.0 hectare of open area suitable for soft parking, temporary shelter, and parade ground shall be provided for a Disaster Management Centre.</p> <p>** For Disaster Management Centre ground coverage shall be calculated only on the primary plot area.</p> | | | | |

- 59.2** In case of Fire Stations up to 25% of the maximum permissible FAR may be utilized for residential use of essential staff in the station.
- 59.3** In case of Fire Training College/Institute up to 15% of the maximum permissible FAR may be utilized for residential and hostel use of essential staff and student accommodation in the institute.
- 59.4** Fire stations must be so located that fire tenders are able to reach any disaster site within 3-5 minutes.
- 59.5** Fire stations shall be located on corner plots as far as possible and on main roads. The plot of a fire station shall have two entries.
- 59.6** Height restriction for all Fire Safety Buildings shall be subject to approval of AAI, Fire regulations and other statutory regulations.
- 59.7** Exit requirements shall be as per Bye law No. **46.0**
- 59.8** All suitable facilities required by the disabled shall be provided as per Byelaw no. **47.0**
- 59.9** Landscaping shall be as per Bye law No. **48.0**

**MODEL BUILDING BYELAWS - 2016,
For DELHI CANTONMENT AREA**

**PART V: STRUCTURAL SAFETY, BUILDING SERVICES,
CONSTRUCTION AND POST-CONSTRUCTION REQUIREMENTS**

60.0 Structural Design and Safety features:

The structural design of foundation elements made of masonry, timber, plain concrete, reinforced concrete, pre-stressed concrete and structural steel, shall be carried out in accordance with Part-VI Structural Design, Section-1 Loads, Section 2 – Foundation, Section 3. Wood, Section 4Masonry, Section 5 - Concrete, Section 6 - Steel of National Building Code of India, taking into consideration all relevant Indian Standards given below:

- 60.1 IS: 1893-1984** “Criteria for Earthquake Resistant Design of Structures (fourth Revision)” June 1986.
- 60.2 IS: 13920 - 1993** “Ductile detailing of Reinforced Concrete Structures subject to Seismic Forces – Code of Practice” November 1993.
- 60.3 IS: 13828 – 1993** “Improving Earthquake Resistance of Low Strength Masonry Buildings” August 1993.
- 60.4 IS: 4326 – 1993** “Earthquake Resistant Design and Construction of Buildings – Code of Practice (Second Revision)” October 1993.
- 60.5 IS: 13827 – 1993** “Improving Earthquake Resistance of Earthen Building – Guidelines” October 1993.
- 60.6 IS: 13935 – 1993** “Repair and Seismic Strengthening of Buildings – Guidelines” November 1993.
- 60.7** Whenever an Indian Standard or the National Building Code of India is referred, the latest provision in the standard should be adhered to.

61.0 Material and Construction Methods

61.1 Quality of Materials and workmanship

(a) All materials and workmanship shall be of good quality conforming generally to accepted standards of Public Works Department of Delhi, Indian Standard Specifications and Code as included in Part V Building Materials and Part VII Constructional Practices and Safety of National Building Code of India.

(b) All burrow pits dug in the course of construction and repair of buildings, roads, embankment and the like shall be deep and connected with each other in the formation of a drain directed towards the lowest level and properly sloped for discharge into a river, stream, channel or drain and no person shall create any isolated burrow pit which is likely to cause accumulation of water which shall breed mosquitoes.

61.2 New Materials and Design Methods

(a) The provisions of these bye-laws are not intended to prevent the use of any material or method of design or construction not specifically prescribed by 61.1 above, provided any such alternative has been approved by BIS or any other statutory body.

(b) Such alternatives may be approved provided that it is found that the proposed alternative is satisfactory and confirms to the provisions of relevant parts regarding material, design and construction and that material, method, or work offered is for the purpose intended, at least equivalent to that prescribed, in the bye-laws in quality, strength, compatibility, effectiveness, fire and water resistance, durability and safety.

62.0 Electrical Services:

The planning, design and installation of electrical installation, air conditioning installation and installation of lifts and escalators shall be carried out in accordance with Part VIII Building Services, Section - 2 Electrical installations, Section - 3 Air- conditioning and Heating, Section – 5 Installation of Lifts and Escalators of the National Building Code of India.

63.0 Energy conservation measures**63.1 Use of Compact Florescent Lamps and Electric Chokes:**

(a) The use of incandescent lamps and conventional chokes in all new buildings, institutions constructed in Government sector, Government Aided sector, Boards and Corporations and Autonomous bodies is banned with immediate effect.

(b) It will be mandatory that in these existing buildings the defective incandescent lamps and chokes when replaced would be replaced by only compact fluorescent lamps (CFL) and electronic chokes.

(c) The Competent Authority will effect necessary modification in the local demand notices within two months time from the issue of this notification to promote the use of Compact Fluorescent Lamps and electronic chokes instead of conventional bulbs and chokes while releasing/sanctioning new connections/loads in such buildings.

63.2 All new cases shall be sanctioned only if they have the following provisions for solar water heating systems:

(a) An open space in the roof which receives direct sunshine; the roof shall have a load bearing capacity of at least 50 kg. per square meter.

(b) The building must have a provision for continuous water supply to the solar water heating system.

(c) The building design should provide for an insulated pipeline from the heating system to all distribution points where hot water is required.

(d) The recommended minimum capacity of installation shall not be less than 25 litres per day for each bathroom and kitchen subject to the maximum of 50% of the total roof area is utilized by the system

(e) Installation of Solar Assisted Water Heating Systems shall conform to BIS specification IS 12933. The solar collectors used in the system shall have the BIS certification mark.

63.3 Whenever hot water requirement is continuous auxiliary arrangement either with electrical elements or oil based systems of adequate capacity may be provided.

63.4 No new building in the following categories in which there is a system of hot water supply shall be sanctioned unless this installation has an solar assisted solar assisted water heating system:

(a) Industries which use hot water for processing;

(b) All hospitals and nursing homes;

(c) All hostels, hotels, motels, guest houses and banquet halls;

(d) Large canteens i.e. which serve more than 100 persons in a day.

(f) Office building on a plot area of 500 square metre or above.

(g) Residential buildings on a plot area of 500 square metre or above.

(h) Residential schools and colleges;

64.0 Lightning protection of Building

The lightning protection for building shall be provided based on the provisions of Part III of the National Building Code of India

65.0 Plumbing Service:

The planning, design, construction and installation of water supply, drainage and sanitation and gas supply systems shall be in accordance with Part IX Plumbing Services, Section - 1 Water Supply, Section - 2 Drainage and Sanitation, Section – 3 Gas Supply of the National Building Code of India.

66.0 Requirements of Water Supply in Building:

66.1 The total requirements of water supply shall be calculated based on the Building Occupancy as follows and as per Table 22.0. Wherever not clearly specified, Occupancy load shall be calculated as per Table 9.0:

(a) Residential Building: Five persons per tenement

(b) Other Buildings: No. of persons based on occupant block and floor area

Table 22.0: Per capita water requirements for various occupancies/uses

| S N | Type of Occupancy | | Consumption/ head/day (litres) |
|-----|---|--------------------------------|--------------------------------------|
| 1 | Residential | In dwelling units | 135 |
| | | Hostels with lodging (per bed) | 100 |
| 2 | Educational | Day school | 045 |
| | | Boarding school | 135 |
| 3 | Hospital | Less than 100 beds | 340 |
| | | More than 100 beds | 450 |
| | | Medical quarters and hostels | 135 |
| 4 | Assembly Buildings like Cinemas theatres, auditoriums etc. (per seat accommodation) | | 015 |
| 5 | Government or semi-public business | | 045 |
| 6 | Commercial | Restaurants – per seat | 070 |
| | | Other business buildings | 045 |
| 7 | Industrial | Factories with bathrooms | 045 |
| | | Factories without bathrooms | 030 |
| 8 | Storage (including warehouses) | | 030 |
| 9 | Hazardous | | 030 |

66.2 Storage of water: Minimum provision should be made for storage of water to meet the daily requirements of the individuals using the building as per Tables 23.0 and 24.0.

Table 23.0: Minimum Flushing storage capacities

| S N | Type of Occupancy | Storage capacity (litres/per day) |
|-----|--|--|
| 1 | For tenements having common conveniences | 180 per water closet seat |
| 2 | For residential premises other than tenements having common conveniences | 270 per first water closet seat and 180 for each additional seat |
| 3 | For factories and workshops | 900 per water closet seat and 180 per urinal |
| 4 | For cinemas, public assembly halls | 900 per water closet seat and 180 per urinal |

Table 24.0: Minimum Domestic storage capacities

| S N | No. of floors | Storage capacity |
|--|-------------------|---|
| For premises occupied as tenements with common convenience | | |
| 1 | Floor 1 | Nil provided no down take fittings are attached |
| 2 | Floor 2 and above | 500 litres per tenement |
| For premises occupied as flats or blocks | | |
| 3 | Floor 1 | Nil provided no down take fittings are attached |
| 4 | Floor 2 and above | 500 litres per tenement |
| Note: | | |
| 1. If the premises are situated at a place higher than the road level in front of the premises, storage at ground level shall be provided on the same lines as on upper floors | | |
| 2. The above storage may be Sanctioned to be installed provided that the total domestic storage calculated on the above basis is not less than the storage calculated on the number of down-take fittings according to the scale given below | | |

- | |
|---|
| <ul style="list-style-type: none"> - Down-take taps: 70 litres each - Showers: 135 litres each - Bathtubs: 200 litres each |
|---|

67.0 Rain water harvesting and Ground water regulations

- 67.1** Water harvesting through storage of water runoff including rain water in all building on plots of 100 square metre and above will be mandatory.
- 67.2** Adoption of roof top rain water harvesting system is mandatory for all residential / educational / institutional / hotel building / industrial and commercial establishments.
- 67.3** The plans submitted to the Board shall indicate the system of storm water drainage along with points of collection of rainwater in surface reservoirs or in recharge wells. These provisions will be applicable as per the Public Notice(s) of Central Ground Water Authority issued from time to time.
- 67.4** Undertaking of any operations connected with drilling, cleaning, construction or rehabilitation of ground water abstraction structures and related works including installation of pumps cannot be taken up without prior permission of the Competent Authority.
- 67.5** Drilling contractors or Agencies/Plot occupiers are required take prior permission for works connected with drilling, cleaning, boring and installation of pumps.
- 67.6** The Authority shall ensure that no drilling activity is undertaken without prior approval and is authorized to take action against offenders by seizing of drilling rig, sealing of tube well and disconnection of electric supply to the energized tube well

68.0 Requirements of Sanitary Fittings:

- 68.1** To ensure optimization of water the following measures shall be adopted in case of all new building sanction where plot size is more than 1000 square meters on a case to case basis as decided by the Competent Authority:
- (a)** Use of low dual flush capacity cisterns in water closets instead of the normal 12.5 litre capacity.
 - (b)** Use of waterless urinals in all public buildings.
 - (c)** Provision of storage and use of recycled water for toilet flushing where the minimum discharge in the building/complex is 10000 litres or more.
- 68.2** The sanitary fittings and installations for different occupancies shall be as given in Table 25.0 to 28.

Table 25.0: Sanitation requirements for Educational Occupancy

| S N | fitments | Nursery School | Boarding institutions | | Other institutions | |
|-----|---|---------------------------------|----------------------------------|---------------------------------|----------------------------------|---------------------------------|
| | | | For males | For females | For males | For females |
| 1 | Water closet | 1 for 15 pupils or part thereof | N A | | | |
| 2 | Ablution tap | One in each water closet | | | | |
| 3 | One water tap with drainage arrangement shall be provided for every 50 persons or part thereof in the vicinity of closets and urinals | | | | | |
| 4 | Urinal | – | 1 for 20 persons or part thereof | – | 1 for 20 persons or part thereof | – |
| 5 | Wash basin | 1 for 15 pupils or part thereof | 1 for 8 pupils or part thereof | 1 for 6 pupils or part thereof | 1 for 60 pupils or part thereof | 1 for 40 pupils or part thereof |
| 6 | Bath | 1 for 40 pupils or part thereof | 1 for 8 pupils or part thereof | 1 for 6 pupils or part thereof | – | – |
| 7 | Drinking water taps | 1 for 50 pupils or part thereof | 1 for 50 pupils or part thereof | 1 for 50 pupils or part thereof | 1 for 50 pupils or part thereof | 1 for 50 pupils or part thereof |
| 8 | Cleaner sink | One per floor minimum | | | | |

Table 26.0: Sanitation requirements for Hotels

| S N | fitments | residential public and staff | For public rooms | | For non-residential staff | |
|-----|--------------|--|---|---|--|---|
| | | | For males | For females | For males | For females |
| 1 | Water closet | 1 per 8 persons; omit room with occupants of both sexes having attached toilet | 1 per 100 persons up to 400; add @ of one per 250 or part thereof for over 400; | 2 per 100 persons up to 200; add @ of one per 100 or part thereof for over 200; | 1 for 1-15 persons, 2 for 16-35 persons, 3 for 36-65 persons, 4 for 66-100 persons | 1 for 1-12 persons, 2 for 13-25 persons, 3 for 26-40 persons, 4 for 41-57 persons |
| 2 | Ablution tap | One in each water closet | | | | |

| | | | | | | |
|--|---|--|--|--|--|---|
| 3 | One water tap with drainage arrangement shall be provided for every 50 persons or part thereof in the vicinity of closets and urinals | | | | | |
| 4 | Urinal | – | 1 for 50 persons or part thereof | – | Nil upto 6 persons, 1 for 7-20, 2 for 21-45, 3 for 46-70, 4 for 71-100 | – |
| 5 | Wash basin | 1 per 100 persons omitting the wash basin installed in bath suites | 1 per water closet and urinal provided | 1 per water closet and urinal provided | 1 for 1-15 persons, 2 for 16-35 persons, 3 for 36-65 persons, 4 for 66-100 persons | 1 for 1-12 persons, 2 for 13-25 persons, 3 for 26-40 persons, 4 for 41-57 persons |
| 6 | Bath | 1 per 10 persons; omit occupants of the room with bath suites | – | – | – | – |
| 7 | Slope sink | 1 per 30 bedroom (1 per floor minimum) | – | – | – | – |
| 8 | sink | One in each kitchen | | | | |
| Notes | | | | | | |
| 1. One water tap with drainage arrangements shall be provided for 50 persons or part thereof in the vicinity of water closets and urinals. | | | | | | |
| 2. It may be assumed that two thirds of the building occupants are males and one third female. | | | | | | |

Table 27.0: Sanitation requirements for Hospital with Indoor Patient Ward

| S N | fitments | Patient toilets | | Office Toilets | |
|--|---------------|------------------------------|------------------------------|--|---|
| | | For males | For females | For males | For females |
| 1 | Toilet Suite* | For up to 4 patients | | For individual doctor's /officer's rooms | |
| For general wards, hospital staff and visitors | | | | | |
| 2 | Water closet | 1 for 8 beds or part thereof | 1 for 8 beds or part thereof | 1 for 1-15 persons, 2 for 16-35 persons | 1 for 1-12 persons, 2 for 13-25 persons |
| 3 | Ablution tap | One in each water closet | | | |
| 4 | Urinal | 1 per every 30 beds | – | Nil up to 6 persons, 1 for 7-20, 2 for 21-45 | – |

| | | | | |
|--|--------------------------|--|--|--|
| 5 | Wash basin | 2 up to 30 beds; 1 for every additional 30 beds or part thereof | 1 for 1-15 persons, 2 for 16-35 persons | 1 for 1-12 persons, 2 for 13-25 persons |
| 6 | Drinking water fountain | 1 per ward | 1 per 100 persons or part thereof | |
| 7 | Bed pan washing sink | 1 per ward | - | |
| 8 | Cleaner sink | 1 per ward | - | |
| 9 | Kitchen sink & dish wash | 1 per ward | - | |
| * A toilet suite comprises of one water closet, 1 wash basin and shower stall. | | | | |

Table 28.0: Sanitation requirements for Medical Occupancy: Staff Quarters and Hostel

| S N | fitments | Doctor's Dormitories | | Nurse Hostel: male & female |
|-----|-------------------------|---|---------------------------------|---------------------------------|
| | | For males | For females | |
| 1 | Water closet | 1 per 4 persons or part thereof | 1 per 4 persons or part thereof | 1 per 4 persons or part thereof |
| 2 | Ablution tap | One in each water closet | | |
| 3 | Wash basin | 1 per 8 persons or part thereof | 1 per 8 persons or part thereof | 1 per 8 persons or part thereof |
| 4 | Bath | 1 per 4 persons or part thereof | 1 per 4 persons or part thereof | 1 per 4 persons or part thereof |
| 5 | Cleaner sink | One per floor minimum | | |
| 6 | Drinking water fountain | One per 100 persons or part thereof with a minimum of one on each floor | | |

Table 29.0: Sanitation requirements for Restaurants

| S N | fitments | For public | | For staff | |
|-----|--------------|--|-------------|--|---|
| | | For males | For females | For males | For females |
| 1 | Water closet | 1 per 50 persons up to 200; add @ of one per 100 or part thereof for over 200; | | 1 for 1-15 persons, 2 for 16-35 persons, 3 for 36-65 persons, 4 for 66-100 persons | 1 for 1-12 persons, 2 for 13-25 persons, 3 for 26-40 persons, 4 for 41-57 persons |
| 2 | Ablution tap | One in each water closet | | | |
| 3 | Urinal | One for 50 persons or part | - | Nil upto 6 persons, 1 for 7-20, 2 for 21-45, 3 for 46-70, | - |

| | | | | | |
|--|---|--|--|--------------|--|
| | | thereof | | 4 for 71-100 | |
| 4 | One water tap with drainage arrangement shall be provided for every 50 persons or part thereof in the vicinity of closets and urinals | | | | |
| 5 | Wash basin | One per floor for 50 persons or part thereof | | | |
| 6 | Slope sink | One in each restaurant | | | |
| 7 | Kitchen sink | One in each kitchen | | | |
| Notes | | | | | |
| 1. In every toilet at least one Indian style water closet shall be provided. | | | | | |
| 2. It may be assumed that two thirds of the building occupants are males and one third female. | | | | | |

Table 30.0: Sanitation requirements for Government and Public Business Occupancies and Offices

| S N | fitments | For male personnel | For female personnel |
|--|---|--|--|
| 1 | Water closet | 1 per every 25 persons or part thereof | 1 per every 15 persons or part thereof |
| 2 | Ablution tap | One in each water closet | |
| 3 | One water tap with draining arrangement shall be provided for every 50 persons or part thereof in the vicinity of closets and urinals | | |
| 4 | Urinal | Nil upto 6 persons, 1 for 7-20, 2 for 21-45, 3 for 46-70, 4 for 71-100 | — |
| 5 | Wash basin | 1 for every 25 persons or part thereof | |
| 6 | Drinking water fountain | 1 per 100 persons or part thereof with a minimum of one on each floor | |
| 7 | Bath | Preferably one on each floor | |
| 8 | Cleaner sink | One per floor minimum preferably adjacent to sanitary rooms | |
| Notes | | | |
| 1. In every toilet at least one Indian style water closet shall be provided. | | | |
| 2. It may be assumed that two thirds of the building occupants are males and one third female. | | | |

Table 31.0: Sanitation requirements for Factories

| S N | fitments | For males | For females |
|-----|---|--|--|
| 1 | Water closet | 1 for 1-15 persons, 2 for 16-35 persons, 3 for 36-65 persons, 4 for 66-100 persons; For 101 – 200 persons add @ 3%; From over 200 persons add @ 2.5% | 1 for 1-12 persons, 2 for 13-25 persons, 3 for 26-40 persons, 4 for 41-57 persons, 5 for 58 – 77 persons, 6 for 78 – 100 persons; For 101 – 200 persons add @ 5%; From over 200 persons add @ 4% |
| 2 | Ablution tap | One in each water closet | |
| 3 | One water tap with drainage arrangement shall be provided for every 25 persons or part thereof in the vicinity of closets and urinals | | |

| | | | |
|---|-------------------------|---|---|
| 4 | Urinal | Nil upto 6 persons, 1 for 7-20, 2 for 21-45, 3 for 46-70, 4 for 71-100 For 101 – 200 persons add @ 3% From over 200 persons add @ 2.5% | - |
| 5 | Drinking Water fountain | One for every 100 persons with a minimum of 1 at each floor | |
| 6 | Baths | As required for particular trade or occupancy | |

Table 32.0: Sanitation requirements for Hospitals with Outdoor Patient Ward

| S N | fitments | Patient toilets | | Office Toilets | |
|-----|-------------------------|---|---|---|---|
| | | For males | For females | For males | For females |
| 1 | Toilet Suite* | For up to 4 patients | | For individual doctor's /officer's rooms | |
| 2 | Water closet | 1 for every 100 persons or part thereof | 2 for every 100 persons or part thereof | 1 for 1-15 persons, 2 for 16-35 persons | 1 for 1-12 persons, 2 for 13-25 persons |
| 3 | Ablution tap | One in each water closet | | | |
| 4 | Urinal | 1 per every 50 persons or part thereof | - | Nil up to 6 persons, 1 for 7-20, 2 for 21- 45 | - |
| 5 | Wash basin | 1 for every 100 persons or part thereof | 2 for every 100 persons or part thereof | 1 for 1-15 persons, 2 for 16-35 persons | 1 for 1-12 persons, 2 for 13-25 persons |
| 6 | Drinking water fountain | 1 per 500 persons or part thereof | | 1 per 500 persons or part thereof | |

* A toilet suite comprises of one water closet, 1 wash basin and shower stall.

Table 33.0: Sanitation requirements for Assembly buildings like Cinema, Auditoriums and Exhibition/Multipurpose Halls

| S N | fitments | For public | | For staff | |
|-----|--------------|--|--|---|---|
| | | For males | For females | For males | For females |
| 1 | Water closet | 1 per 100 persons up to 400; Over 400 add @ of one per 250 or part thereof; | 3 per 100 persons up to 200; Over 200 add @ of 2 per 100 or part thereof; | 1 for 1-15 persons, 2 for 16-35 persons, 3 for 36-65 persons, | 1 for 1-12 persons, 2 for 13-25 persons, 3 for 26-40 persons, |
| 2 | Ablution tap | One in each water closet | | | |

| | | | | | |
|--|---|---|---|--|---|
| 3 | Urinal | One for 25 persons or part thereof | - | Nil upto 6 persons, 1 for 7-20, 2 for 21-45, 3 for 46-70, 4 for 71-100 | - |
| 4 | One water tap with drainage arrangement shall be provided for every 50 persons or part thereof in the vicinity of closets and urinals | | | | |
| 5 | Wash basin | One per floor for 100 persons or part thereof | | | |
| 6 | Slope sink | One in each restaurant | | | |
| Notes | | | | | |
| 1. In every toilet at least one Indian style water closet shall be provided. | | | | | |
| 2. It may be assumed that two thirds of the building occupants are males and one third female. | | | | | |

MODEL BUILDING BYELAWS - 2016, For DELHI CANTONMENT AREA

PART VI: SPECIAL PROVISIONS

69.0 Provisions relating to FAR on Government Lands:

In respect of Govt. land held by persons, the provisions relating to FAR under these bye laws shall be subject to the terms and conditions of the occupancy on which land is granted to the concerned person.

70.0 Unauthorized Construction

70.1 The Cantonment Board shall be competent to consider an unauthorized construction, which otherwise conforms to these byelaws, for regularization.

70.2 The Cantonment Board in its discretion may impose a fee in the range of five to ten percent of construction cost for regularization of unauthorized construction on a case to case basis.

71.0 Building damaged due to Act of God

Notwithstanding anything contained in these Bye-laws a person shall be eligible to re-erect, renovate or repair his building which has been damaged or fallen down due to an Act of God like, earthquake, flood or fire, subject to the fulfillment of the following conditions:

71.1 Applicant shall give an intimation of such an event to the Competent Authority within a period of seven days from the date of its occurrence.

71.2 Applicant shall give a notice for re-erection, renovation or repair of the building along with all necessary documents at least seven days before commencement of the work;

71.3 The total floor area of the building after re-erection, renovation or repair shall not exceed the total floor area of the building so damaged or fallen down;

71.4 The building shall be re-erected, renovated or repaired in conformity with the original sanctioned plan;

71.5 Where sanctioned plan of the building is not available in the records of the Competent Authority, the Applicant shall produce a copy of the sanctioned plan of the building OR Survey of India plan OR any other document which shows that the building was in existence and the said building was not

declared unauthorized by the Competent Authority by way of issuance of notice or order to this effect under the law in force

- 71.6 The re-erection, renovation or repair of the building, shall be in accordance with the provisions of these building bye-laws.
- 71.7 After completion of the re-erection, renovation or repair of the building, Applicant shall give intimation to the Competent Authority within seven days for inspection.
- 71.8 On receipt of intimation as per 71.1 Competent Authority shall cause the inspection of the site in order to verify the veracity of the notice. If the contents of the notice is not found to be correct, the Competent Authority shall, in writing forthwith direct the concerned person not to commence the work.
- 71.9 On receipt of intimation as per 71.7 Competent Authority shall cause the inspection of the building in order to ensure that the building has been completed in accordance with the provisions of these building bye-laws and the total floor space of the building does not exceed the floor space of the building fallen down or damaged.
- 71.10 The building shall not be occupied unless a Completion Certificate is issued by the Competent Authority. If within a period of thirty days after the receipt of the intimation of completion the Competent Authority fails to communicate refusal to issue the Completion Certificate, such certificate shall be deemed to have been granted.
- 71.11 These Building Bye Laws shall not be applicable to the Government buildings. The Government buildings shall be governed under the provisions of Government Building Act 1899.

**MODEL BUILDING BYELAWS - 2016,
For DELHI CANTONMENT AREA
APPENDIX**

**FORM A: APPLICATION FORM FOR BUILDING SANCTION
(TO BE SUBMITTED BY APPLICANT)**

To,
The Chief Executive Officer
Delhi Cantonment, Delhi 110010

Sir,
I hereby give notice that I intend to erect/re-erect/make addition/ alterations in the building _____ on /in plot _____ land situated at Roar/Street _____ Cantonment and in accordance with the Cantonment Act, 2006 amended up to date.

I forward herewith the following plans and statements (item 1 to 5) wherever applicable, in quadruplicate, signed by me and (name in block letters) _____ the Architect who has prepared the same along with a copy of other statements/documents/as applicable (item no. 6 and 7).

- 1. Key Plan (location plan)
- 2. Site plan.
- 3. Sub-division/layout plan
- 4. Building plan
- 5. Clearance certificate of tax arrears
- 6. No objection certificate where required

The structural design has been undertaken by _____ the Structural Designer who has also signed the Structural Safety Certificate (FORM C). I request that the proposed construction may be approved and permission accorded to me to execute the work

Signature of Applicant _____

Name of Applicant _____
(IN BLOCK LETTERS)
Address of Applicant _____

Dated _____

FORM B: SPECIFICATIONS OF THE PROPOSED STRUCTURE

(TO BE SUBMITTED BY THE ARCHITECT AND APPLICANT)

- (a) The proposed building at Plot No. _____ on / in Survey no. _____ situated at Street /Road _____ Delhi Cantonment, is meant for _____ purpose (residential, commercial, school, factory, shop etc.)
- (b) I certify that the building plans submitted for approval satisfy the water harvesting requirements as well as minimum anticipated discharge of waste water as stipulated by the Building Byelaws of the Delhi Cantonment Board.
- (c) The approximate number of inhabitants of this building is _____ .
- (d) The building has a total of _____ water closets, _____ urinals, _____ baths and _____ kitchens.
- (e) Water to be used during construction shall be sourced from _____ .
- (f) The distance from the public sewer is _____ .

(g) Details of coverage on respective floors are as follows:

| S N | floors | Existing in square metre | Proposed in square metre | Total in square metre |
|--------|--|-----------------------------|-----------------------------|--------------------------|
| 1 | Basement | | | |
| 2 | Ground floor/stilt | | | |
| 3 | First floor | | | |
| 4 | Second floor | | | |
| 5 | Third floor | | | |
| 6 | Fourth floor in case of stilt construction | | | |

(h) The materials to be used in the construction of the building are as follows:

1. Foundation _____
2. Walls/Columns _____
3. Intermediate floors _____
4. Roof _____
5. Flooring and Dado _____
6. Door and Window _____

(i) I hereby state and take responsibility that building has been designed and will be erected within the framework of Building Byelaws of the Delhi Cantonment Board.

Signature of Architect _____
 License No. _____
 Name _____
 Address _____

Signature of Applicant _____
 Name of Applicant _____
 Address of Applicant _____

Date _____

FORM C: CERTIFICATE REGARDING SAFETY FROM NATURAL HAZARDS AND STRUCTURAL SAFETY

(TO BE SUBMITTED BY STRUCTURAL ENGINEER AND APPLICANT)

To,

The Chief Executive Officer
Delhi Cantonment, Delhi 110010

I hereby certify that the erection/ re-erection or addition/ alteration in building No. ____ on / in plot no. _____ in block no. _____ situated at road / street _____ survey / Cantonment No. _____ of Delhi Cantonment has been undertaken by me.

I certify that the building plans submitted for approval are designed for safety requirements of Byelaw no. 55.0

I further certify that the structural design including safety from natural hazards based on soil conditions have been taken into consideration and duly incorporated into the structural drawings of the building which have been submitted. These provisions shall be adhered to during the construction.

Signature of Engineer
Name in block letters
Address

Signature of Applicant
Name in block letters
Address

Dated _____

FORM D: CERTIFICATE FOR SUPERVISION

To,
The Chief Executive Officer
Delhi Cantonment, Delhi 110010

Sir,

I hereby certify that the erection/ re-erection or addition/ alteration in building No. ____
_____ on / in plot no. _____ in block
no. _____ situated at road / street _____ survey
/ Cantonment No. _____ shall be carried out under my supervision and I
certify that all materials (type and grade) and the workmanship of the work shall be
generally in accordance with the general specification submitted along with the
building application and that the work shall be carried out according to the sanction
plan. I shall be responsible for the execution of the work in all respects.

Signature of
Architect / Civil Engineer / Structural Engineer _____

Name of
Architect / Civil Engineer / Structural Engineer _____

License no. of
Architect / Civil Engineer / Structural Engineer _____

Signature of
Architect / Civil Engineer / Structural Engineer _____

Signature of Applicant _____

Name in block letters _____

Address _____

Dated _____

Name of Cantonment _____

FORM E: INDEMNITY BOND FOR BASEMENT

(TO BE SUBMITTED BY APPLICANT)

TO BE SUBMITTED ON NON-JUDICIAL E-STAMP PAPER OF RS. 10/- DULY ATTESTED BY THE OATH COMMISSIONER/MAGISTRATE FIRST CLASS

Indemnity bond is executed by Shri _____ s/o Shri _____ R/o _____ hereby called Applicant of plot no. _____ in _____ of Delhi Cantonment in favor of the Competent Authority its successors or entitled.

Whereas the Applicant have submitted the plan of basement and whereas the Applicants have represented to the Competent Authority and if sanction is granted for the construction of the said basement the Applicants shall indemnify the Competent Authority of any loss at time of digging of foundation of the said basement or in the course of construction of the basement or even thereafter.

And whereas the said Applicants have further agreed to indemnify the Competent Authority for any claims put up against the Authority either by way of damage, compensation or in any other way in case the Authority is required to pay any such amount to any person or the Applicant or Applicants of the adjoining properties. The Applicants hereby agree and undertake to indemnify the Authority to pay the full extent of the amount the Authority may require to pay to the extent hereinabove mentioned.

The Applicant further undertake and agree to indemnify the Authority for any such amount the Competent Authority may require to pay either by way of compensation or damage or any other amount and further undertake to indemnify the authority of all cost and expenses that the Authority may require to defend such action in any court of law. The Applicants undertake that no excavation shall be carried out beyond permissible boundaries of plot. Any damage occurring during or due to excavation made at site to public sewer, water drains shall be made good by the Applicants.

In consideration of the above matter, undertaking and indemnity given by the said Applicants the Authority hereunder in this behalf grant the sanction to construct the basement to the said Applicant.

In witness hereof the Applicants abovementioned put their hands and seal to the said indemnity bond on this _____ day of _____

Witness:

_____ (1) _____
_____ (2) _____

(Executants)

(Applicant)

FORM F: CERTIFICATE FOR SANCTION OF BUILDING SANCTION AND WORK COMMENCEMENT

To,

Sir,

With reference to your application no. _____ dated _____ for the Grant of sanction of work commencement under Cantonment Act, 2006 to erect building in Plot no. _____ on / in Survey No. _____ situated at _____ street _____ Cantonment, the commencement certificate / building sanction is granted subject to the following conditions:

1. The land vacated in consequence of the enforcement of the set back shall form part of the public street.
2. No new buildings or part thereof shall be occupied or allowed to be occupied or used or Sanctioned to be used by any person for purpose other than for which it is sanctioned.
3. The building sanction shall remain valid for a period of two years commencing from date of issue of this Sanction.
4. This permission does not entitle you to construct on land which does not vest in you
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Letter No. _____

Office Stamp
Date _____

Chief Executive Officer
Delhi Cantonment

**FORM G: NOTIFICATION OF REFUSAL OF SANCTION OF
BUILDING APPLICATION**

To,

Sir,

With reference to your application no. _____ dated _____ for the Grant of sanction of commencement certificate under Cantonment Act, 2006 to erect building in Plot no. _____ on / in Survey No. _____ situated at _____ street Delhi Cantonment, I have to inform you that the sanction has been refused on the following grounds:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____
13. _____
14. _____

Letter No. _____

Office Stamp

Date _____

Chief Executive Officer
Delhi Cantonment

FORM H: NOTICE FOR COMMENCEMENT OF WORK

To,

The Chief Executive Officer
Delhi Cantonment, Delhi 110010

Sir,

I hereby state that the erection / re-erection or addition/alteration in/o building no. _____ on / in Survey No. _____ Mohalla /Road _____ Delhi Cantonment will be commenced on _____ as per your permission vide office communication no. _____ dated _____ under the supervision of _____ Architect / Civil Engineer / Structural Engineer / in accordance with sanctioned plans.

Signature of Applicant _____

Name of Applicant _____
(IN BLOCK LETTERS)

Address of Applicant _____

Dated _____

FORM I: NOTICE ON COMPLETION OF BUILDING

To,

The Chief Executive Officer,
Delhi Cantonment, Delhi 110010

Sir,

1. We hereby certify that the erection/re-erection of building or addition/alteration in building on _____ (address) has been Supervised by the undersigned and is strictly in accordance to sanctioned plan vide letter _____ dated _____. No provisions of the building byelaws have been transgressed. The work has been completed to our satisfaction and the workmanship and materials used strictly in accordance with general and detailed specifications. Drainage/sanitation/water supply works have been executed as per building byelaws and sanctioned plan. No provision of the Building Byelaws and conditions prescribed or orders issued there under have been transgressed in the course of the work. The building is fit for use for which it has been erected/re-erected or altered/constructed and enlarged.

2. Certificates:

2.1 Certified that the building/s has been constructed according to the Sanctioned Plan and structural design which incorporate the provisions of structural safety as specified in relevant prevailing IS Codes/Standards/Guidelines.

2.2 Certified that water harvesting as well a waste water re-cycling systems have been provided as per the sanctioned building plan.

2.3 It is also certified that construction has been done under our supervision and guidance and adheres to the drawings submitted and the records of supervision maintained by us.

3. Permission to occupy or use the building may be granted.

4. Any subsequent change from completion drawings will be the responsibility of the Applicant(s)

Signature of Applicant _____

Name _____

Address _____

Signature of Supervisory Architect _____

License No. _____

Name _____

Address _____

Signature of Structural Engineer _____

License No. _____

Name _____

Address _____

Dated _____

FORM J: CERTIFICATE FOR COMPLETION-CUM-OCCUPANCY OF BUILDING

To,

Sir,

With reference to your notice of completion dated _____ I hereby certify that building, as per description below certified plan at _____ address whose plans were sanctioned vide sanction no _____ dated _____ has been inspected with reference to building bye-laws in respect of the structural safety, hygienic and sanitary conditions inside and in the surrounding. **It is declared fit for occupation.** The detail of the construction work completed is as follows:

Brief description of each block with area:

1. _____
2. _____
3. _____
4. _____
5. _____
6. _____
7. _____
8. _____
9. _____
10. _____
11. _____
12. _____

Letter No. _____

Office Stamp
Date _____

Chief Executive Officer
Delhi Cantonment