JAMMU & KASHMIR
UNIFIED BUILDING BYELAWS -2021

February 2021

GOVERNMENT OF JAMMU & KASHMIR

Housing & Urban Development Department

Jammu & Kashmir

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CHAPTER 1: PRELIMINARY

1.1 Title, commencement and application

These building Byelaws may be called the Jammu & Kashmir Unified Building Bye-Laws-2021. They shall come into force from the date of their final publication in the official Gazette in the manner prescribed by the Competent Authority.

All mandatory Master Plan or Zonal Regulations regarding use, land use, including modification therein made from time to time shall be applicable *mutatis mutandis* in these Byelaws under this clause. All amendments or modifications made in the aforesaid regulations shall automatically stand deemed to have been included as part of these Byelaws.

1.2 Definitions

In these Byelaws, unless the context otherwise required the definition given shall have the meaning indicated against each term.

1) **Advertising Sign-** Any surface or structure with characters, letters or illustrations applied there to and displayed in any manner whatsoever out of door for the purpose of advertising or giving information regarding or to attract the public to any place, person, public performance, article, or merchandise and which surface or structure is attached to, from part of, or is connected with any building or is fixed to a tree or to the ground or to any pole screen, fence or hoarding or displayed in space, or in or over any water body included in the jurisdiction of the concerned Authority.
2) **Alley -** means a public thoroughfare which affords only a secondary means of access to abutting property and not intended for general traffic circulation.
3) **Apartment** - The building will be called apartment house when the building is arranged/intended/designed to be occupied by the families independent of each other and with independent cooking facility for the purpose of sale/lease/rent to person.
4) **Access -** A clear approach to a plot or a building.
5) **Alteration -** A change from one occupancy to another, or a structural change, such as an addition to the area or height, or the removal of part of a building, or any change to the structure, such as the construction of, cutting into or removal of any wall, partition, column, beam, joist, floor (including a mezzanine floor) or other support, or a change to or closing of any required means of ingress or egress or a change to the fixtures or equipment.
6) **Approved -** Approved by the Authority having jurisdiction.
7) **Air-Conditioning –** A process of treating air to control simultaneously its temperature, humidity, cleanliness, and distribution to meet the requirement of an enclosed space.
8) **Authority Having Jurisdiction**-The Authority which has been created by a statute and which for the purpose of administering the Byelaws/part may authorize committee or an official to act on its behalf; hereinafter called the 'Authority'.
9) **Balcon**y -A horizontal projection, cantilevered or otherwise including a parapet handrail balustrade, to serve as a passage or sitting out place.
10) **Basement or Cellar** -The lower story of a building below, or partly below the ground level.
11) **BPIA (Building Permit Issuing Authority)-** The officer notified by the Urban Local Body or Urban Local Authority for issuing the Building Permits.

12) **Building**- Any structure for whatsoever purpose and of whatsoever materials constructed and every part thereof. Whether used as human habitation or not and includes foundation, plinth, walls, floors roofs, chimneys, plumbing and building services, fixed platforms, veranda, balcony, cornice or projection, part of a building or anything affixed thereto, or any wall enclosing or intended to enclose any land or space and signs and outdoor display structures. Tents, Shamianahs, tarpaulin shelters, etc., erected for temporary and ceremonial occasions with the permission of the Authority shall not be considered as building.

13) **Building Line**- The line up to which the plinth of building adjoining a street or an extension of a street or on a future street or a water channel may lawfully extend and includes the lines prescribed, if any, in any scheme and/or development plan.
The Build-to-Line shall be considered as the imaginary line formed after leaving the Front (Roadside Setback/setback) as governed by the road width.
Building line shall be measured from the centre of median or centre of carriageway for established roads and the centre of RoW for other roads.

14) **Building Height**- The vertical distance measured:
   a. In the case of flat roofs from the average level surrounding ground and continuance to the highest point of the building.
   b. In case of pitched roofs up to the point where the external surface of the outer wall intersects the finished surface of the sloping roof.
   c. In the case of gables 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.

15) **Building Envelope**- The horizontal spatial limits up to which a building may be permitted to be constructed on a plot.

16) **Building set back –** means the distance by which any building or structure shall be separated from the corresponding boundary lines of the plot.

17) **Built up Area**- means area covered immediately above the plinth level and the external area of upper floor.

18) **Canopy** -shall mean a cantilevered projection from the face of the wall over an entry to the building at the lintel level provided that:
   a. It shall not project beyond the plot line.
   b. It shall not be lower than 2.3 metres or 7'-6" when measured from the ground.
   c. There shall be no structure on it and the top shall remain open to sky.

19) **Carpet Area**- The covered area of the usable rooms at any floor level (excluding the area of the wall).

20) **Chajja**-A sloping or horizontal structural overhang provided over openings on external walls for protection from the weather.

21) **Cabin**- A non- residential enclosure constructed of non-load bearing partitions.

22) **Chimney**-A construction by means of which a flue is formed for the purpose of carrying products of combustion to the open air and includes a chimney stack and the flue pipe.

23) **Ceiling height**- means the vertical distance between the floor and the ceiling, where a finished ceiling is not provided, the underside of the joists or top of post plate in case of pitched roof shall determine the upper point of measurement.

24) **Commercial Building**- means a building used as shop, store, market, money transaction, sale and purchase of goods either wholesale or retail, storage, godown or any other activities carried in furtherance of trade and commerce.

25) **Competent Authority:** The Administrative Secretary- Housing and Urban Development Department shall be the Competent Authority.

26) **Clinic**- means a premise with facilities for treatment of outdoor patients by a doctor.

27) **Courtyard**- A space permanently open to sky, enclosed fully or partially by buildings and may be at ground level or any other level within or adjacent to a building.

28) **Cornice**- means a sloping or horizontal structural overhang usually provided over openings or external walls to provide protection from sun and rain.

29) **Cluster**- Plots or dwelling units or housing grouped around an open space ideally housing cluster should not be very large. In ground and one storeyed structure not more than 20 houses should be grouped in a cluster. Clusters with more dwelling units will create problems in identity, encroachments and of maintenance.

30) **Covered Area**- Ground area covered by the building immediately above the plinth level. The area covered by the following in the open spaces is excluded from covered area. Garden, rockery, well and well structures, plant nursery, water pool, swimming pool (if uncovered), platform round a tree, tank, fountain, bench, Chabutra with open top and unenclosed on sides by walls and the like; Drainage culvert conduit, catch-pit, gully pit, chamber, gutter and the like; Compound wall, gate, unstoreyed porch and portico, canopy, slide, swing, uncovered staircase, ramps areas covered by Chhajja and the like; and Watchmen's booth, pump house, garbage shaft, electric cabin or sub-stations, and such other utility structures meant for the services of the building under consideration.
Note- For the purpose of this Part, covered area equals the plot area minus the area due for open spaces.

31) **'Cul-de-Sac' Cluster**- Plots/dwelling units when located along a pedestrianized or vehicular 'cul-de-sac' road.

32) **Day/s**– Working day of the BPIA.

33) **Density**- The residential density expressed in terms of the number of dwelling units per hectare.
Note - Where such densities are expressed exclusive of community facilities and provision of open spaces and major roads (excluding incidental open spaces), these will be net residential densities. Where these densities are expressed taking into consideration the required open space provision and community facilities and major roads. These would be gross residential densities at neighbourhood level. Sector level or town level, as the case may be. The provision of open spaces and community facilities will depend on the size of the residential community. Incidental open spaces are mainly open spaces required to be left around and in between two buildings to provide lighting and ventilation.

34) **Designated Persons-** The person notified by the Urban Local body or Urban Local authority for the receipt of documentations and clearances on behalf of ULB/ULA.

35) **Detached Building**- A building detached on all sides.

36) **Development**- 'Development' with grammatical variations means the carrying out of building, engineering, mining or other operations, in, or over, or under land or water, on the making of any material change, in any building or land, or in the use of any building, land, and includes redevelopment and layout and subdivision of any land; and to develop' shall be construed accordingly.

37) **Drain**- A conduit, channel or pipe for the carriage of storm water, sewage, wastewater or other water borne wastes in a building drainage system.

38) **Drainage**- The removal of any liquid by a system constructed for the purpose.

39) **Dwelling**– is a building designed or used to be used for residential purposes. Dwelling shall not include boarding or rooming houses, tents, tourist camps, hotels, guesthouses, or other structure used for transit residents like pilgrims, tourists, specialized terms etc.

40) **Dwelling Unit/Tenement**- An independent housing unit with separate facilities for living, cooking and sanitary requirements.

41) **Escalator**- A power driven, inclined, continuous moving stairway used for raising or lowering passengers.

42) **Exit**- A passage, channel or means of egress from any building, storey or floor area to a street or other open space of safety.

43) **Enclosed Staircase**-means a staircase separated by fire resistant walls and doors from the rest of the building.

44) **Erection**- Means to construct for the first time or to construct existing building after demolition or to add another storey over the existing one according to some pre or revised plans.

45) **Fire and /or Emergency alarm System**- means an arrangement of call points or detectors, sounders and other equipment for the transmission and indication of alarm signals working automatically or manually in the event of fire.

46) **Fire Pump**- means a machine, driven by external power for transmission energy to fluids by coupling the pump to a suitable engine or motor, which may have varying outputs/ capacity but shall be capable of having a pressure of 3.2 Kg/cm2 at the topmost level of multi-story or high rise building.

47) **Fire Service Inlet**- means a connection provided at the base of a building for pumping up the water through in-built fire-fighting arrangements by fire service pumps in accordance, with the recommendation of the Chief Fire Officer.

48) **Filling station**- means an area of land including any structures thereon that is or are used or designed to be used for the supply of gasoline or oil or fuel for the propulsion of vehicles. For the purpose of these building regulations these shall be deemed to be included within this term, any area or structure used designed to be used for polishing, greasing, and washing, spraying or otherwise cleaning or servicing such motor vehicles.

49) **Fire Hazard Industries**-

i) **"Low Fire Hazard Industries"** include engineering industries using/ processing or assembling non-combustible materials i.e. lathe machines, steel works, steel components etc.

ii) **"Moderate Fire Hazard Industries"** industries include using/processing or assembling combustible materials but not flammable liquid etc., i.e. plastic industries, rubber and PVS industries, textile paper, furniture flour mills etc.

iii) **"High Fire Hazard Industries"** includes industries using/ processing flammable liquids, gases, chemicals petroleum products, plastic or thermo setting group etc.

50) **Floor**- The lower surface in a storey on which one normally walks in a building. The general term 'floor' unless specifically mentioned otherwise shallot refer to a 'mezzanine floor'.

51) **Floor Area Ratio (FAR**) – The quotient of the ratio of the combined covered area of all floors, excepting areas specifically exempted under these regulations, to the total area of plot viz:

Floor Area Ratio (FAR) $= \frac{Total\ Covered\ Area\ on\ all\ Floor\ X\ 100}{PlotArea}$

52) **Foundation**- This part of the structure, which is in direct contact with ground and transmits load over it.

53) **Gallery**– An immediate floor or platform projecting from a wall or an auditorium or a hall providing etc. floor area and additional seating accommodation and includes the structures provided for seating in stadia.

54) **Govt. Approved Colony-** A colony planned and developed by developers and approved by urban local bodies, development authorities housing board or other Govt. agencies.

55) **Govt. Colony**- A colony planned and developed by urban local bodies, development authorities, housing board or other Govt. agencies.

56) **Group Housing**- Housing for more than one dwelling unit, where land is owned jointly (as in the case of cooperative societies or the public agencies, such as local authorities or housing boards, etc.) and the construction is undertaken by one Agency.

57) **Guest House**- A guest house shall have separate sleeping accommodation on transient or permanent basis with or without dining facilities for not more than 24 persons at a time.

58) **Habitable Room**- A room occupied or designed for occupancy by one or more persons for study, living, sleeping, eating, and kitchen if it is used as a living room, but not including bathrooms, water-closet compartments, laundries, serving and store pantries, corridors, cellars, attics, and spaces that are not used frequently or during extended periods.

59) **Hazardous Buildings** -

(a) Storage, handling, manufacture of processing of radioactive substances or highly combustible or explosive materials or of products which are liable to burn with extreme rapidity and/or producing poisonous fumes or explosive emanations.

(b) Storage, handling, manufacture, or processing of which involves highly corrosive, toxic or noxious alkalis, acids, or other liquids, gases or chemicals producing flame, fumes and explosive mixtures etc. or which result in division of matter into fine particles capable of spontaneous ignition.

60) **Heritage Building**- means any building of one or more premises or any part there of which requires preservation, restoration, and conservation for historical, architectural, environmental, cultural or religious purpose and includes such portion of the land adjoining such buildings as may be required.

61) **Heritage Zone**- means the area around such heritage building as delineated under Jammu and Kashmir Heritage and Conservation and Preservation Act, 2010 from time to time for restricting the height of building and use of building. The areas coming under different ASI sites including the buffers will also be treated as heritage zone.

62) **Hotel**- These shall include any building or group of buildings under single management, in which sleeping accommodation is provided, with or without dining facilities.

63) **Interlocking Cluster**- Clusters when joined at back and on sides with at least one side of a cluster common and having some dwelling units opening onto or having access from the adjacent clusters. Dwelling units in such clusters should have at least two sides open to external open space. Houses in an interlocking cluster may have access, ventilation and light from the adjacent cluster and should also cater for future growth.

64) **Industrial Building**- means a building, which is wholly or predominantly used as a warehouse or for Manufacturing/assembling, processing activity or distillery.

65) **Ledge or Taakh**- A shelf-like projection, supported in any manner whatsoever, except by means of vertical supports within a room itself but not having projection wider than 1m.

66) **Lift**- A mechanically guided car, platform for transport of persons and materials between two or more levels in a vertical or substantially vertical direction.

67) **Loft**- An intermediate floor between two floors or a residual space in a pitched roof above normal level constructed for storage with maximum clear height of 1.5 m.

68) **Master Plan**– A Master Plan for town approve by the Government.

69) **Mezzanine Floor**- An intermediate floor (having minimum height of 2.2 m) between two floors of any storey forming an integral part of floor below. Mezzanine Floor shall be counted in FAR.

70) **Mumty or Stair cover**– 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 used for human habitation.

71) **Non-conforming use/ building**– it is a building, structure or use of land existing at the time of commencement of the zoning regulations and which does not conform to the regulations pertaining to the zone in which it is situated.

72) **Occupancy or Use** - The principal occupancy for which a building or a part of a building is used or intended to be used; for the purposes of classification of a building according to occupancy; an occupancy shall be deemed to include subsidiary occupancies which are contingent upon it.

73) **Open Space**- An area, forming an integral part of the plot, left open to the sky.

Note: The open space shall be the minimum distance measured between the front, rear and side of the building and the respective plot boundaries.

74) **Open Space, Front**- An open space across the front of a plot between the building line and front boundary of the plot.

75) **Open Space, Rear**- An open space across the rear of a plot between the rear of the building and the rear boundary of the plot.

76) **Open Space, Side**- An open space across the side of the plot between the side of the building and the side boundary of the plot.

77) **Owner**- A person, a group of persons or a body having a legal interest in land and/or building thereon. This includes free holders, leaseholders or those holding a sublease, who will have a legal right to occupation and have liabilities in respect of safety or building condition. In case of lease or sublease holders, as far as ownership with respect to the structure is concerned, the structure of a flat or structure on a plot belongs to the allotted/ lessee till the allotment/lease subsists.

Note - For the purpose of this document, the word 'owner' will also cover the generally understood terms like 'client', 'user ', etc.

78) **Parapet**– A low wall or railing built along the edge of a roof or a floor.

79) **Parking Space**- An enclosed or unenclosed covered or open area sufficient on size to park vehicles. Parking spaces shall be served by a driveway connecting them with a street or alley and permitting ingress and egress of the vehicles.

80) **Pathological laboratories**- means a premise with facilities for carrying out various tests for the confirmation of symptoms of a disease.

81) **Plinth**- The portion of a structure between the surface of the surrounding ground and surface of the floor immediately above the ground.

82) **Plinth Area**– The built-up covered area measured at the floor level of the basement or of any story.

83) **Porch** - A covered surface supported on pillars otherwise for the purpose of a pedestrian or vehicular approach to a building.

84) **Polyclinic**- means an institution where patients are clinically examined by one or more doctors for treatment of disease and where patients are treated but not admitted as indoor patients as is the case with hospitals and nursing homes. It can have basic diagnostic facilities.

85) **Public Building**- means a Building owned or used by Govt. or Semi Govt. Authority, Public registered Trust or such board/foundation which runs and manages charitable institution like hospitals, educational institutions and religious institutions. It shall also include places of Worship like Mosque, Temple, Gurudwara, Church etc.

86) **Plans**– means a detailed subdivision plan indicating size and arrangement of all premises uses.

87) **Plot**– A piece of land occupied or intend to be occupied for occupancy by a main building with its accessory buildings and uses incidental to it.

88) **Plot Width**– The shorter the distance from one side of the plot line to the other measured through that part of the plot to be occupied by the building.

89) **Room Height**- The vertical distance measured from the finished floor surface to the finished ceiling surface. Where a finished ceiling is not provided, the underside of the joists or beams or tie beams shall determine the upper point of measurement.

90) **Row Housing/Row Type Building**- A row of buildings, with only front, rear and interior open spaces, where applicable.

91) **RoW- Right of Way** – The RoW is the width of land area acquired for the construction of the roadway. This includes, carriageway, footpath, service roads, utility area, buffer, shoulders, and area for future expansions of road.

92) **Residential Building**- means a building used for human habitation and includes all garages, stables or other building apartment/hostels thereto.

93) **Registered Technical Personnel (RTP**) - will mean qualified person/persons as Architect/ Engineer/ Planner/ Group of technical personnel/ Supervisor/ Plumber/Electrician who has been enrolled/licensed by the BPIA /accreditation board.

94) **Required open space**- The space between the plot lines and the minimum building set back lines.

95) **Semi-Detached Building**- A building detached on three sides.

96) **Service Road/Lane**- A road/lane provided adjacent to a plot(s) for access or service purposes as the case may be.

97) **Set-back Line**- A line usually parallel to the plot boundaries and laid down in each case by the Authority beyond which nothing can be constructed towards the plot boundaries.

98) **Site (Plot)**- A parcel (piece) of land enclosed by definite boundaries.

99) **Site, Corner**- A site at the junctions of and fronting on two or more intersecting streets.

100) **Site, Depth of**-The mean horizontal distance between the front and rear site boundaries.

101) **Stair cover or Mumty**- A structure with a roof over a staircase and its landing built to enclose only the stairs for the purpose of providing protection from weather and not used for human habitation.

102) **Storey**– The portion of a building included between the surface of any floor and the surface of the floor next above it, or if there can be no floor above it, then the space between any floor and the ceiling next above it.

103) **Storey, Topmost**- The uppermost storey in a building whether constructed wholly or partly on the roof.

104) **Street/Road-** Any means of access, namely, highway, street, lane, pathway, alley, stairway, passageway, carriageway, footway, square, place or bridge, whether thoroughfare or not, over which the public have a right 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, footpaths, sidewalks, traffic islands, roadside trees and hedges, retaining walls, fences, barriers and railings within the street lines.

105) **Street Level or Grade**-The officially established elevation or grade of the central line of the street upon which a plot fronts and if there is no officially established grade, the existing grade of the street at its mid-point.

106) **Street Line -** The line defining the side limits of a street.

107) **To Erect**- To erect a building means,

- **a.** To erect a new building on any site whether previously built upon or not; and
- **b.** To re-erect any building of which portions above the plinth level have been pull down, burnt or destroyed.

108) **Urban Local Authority (ULA):** All local authorities constituted under J&K Development Act 1970 and controlled by Housing and Urban Development Department.

109) **Urban Local Body (ULB):** All municipal corporations, municipal councils and municipal committees constituted under J&K Municipal Corporation Act 2000 and J&K Municipal Act 2000 shall be deemed to be urban local body.

110) **Verandah-** A covered area with at least one side open to the outside with the exception of l m high parapet on the upper floors to be provided on the open side.

111) **Ventilation**– shall mean the supply of outside air into a building through window or other openings due to wind outside and convection effects arising from temperature, or vapour pressure differences (or both) between inside and outside of the building.

112) **Water Closet (W.C)**– A water flushed plumbing fixture designed to receive human excrement directly from the user of the fixture. The term is used sometimes to designate the room or compartment in which the fixture is placed.

113) **Window**– An opening to the outside other than a door, which provides all or part of the required natural light or ventilation of both to an interior space and not used as a means of egress/ ingress.

114) **Warehouse-** means a building, the whole or substantial part of which is used or intended to be used for the storage of goods but does not include a storeroom attached to and used for the proper functioning of a shop.

115) **Workshop -** means a building where not more than ten persons are employed in any repair /servicing or manufacturing process

116) **Zonal plan**– A plan detailing out the proposals of Master Plan and acting as a link between Master Plan and the layout plan. It may contain a site plan and land use plan, with approximate location and extent of land uses. Such as public & semi-public buildings/ works utilities, roads, housing, recreation, industry, business, markets, schools, hospitals open spaces etc. It may also specify standards of population density and various components of development of the zone.

117) **Zone**– means any division in which local areas is divided for purpose of development.

CHAPTER 2: JURISIDICTION, APPLICABILITY AND PROCEDURE FOR OBTAINING BUILDING PERMISSION & SANCTIONING BUILDING PLAN

2.1 Jurisdiction of Building Byelaws

These Building Byelaws shall apply to the building activity in the Union Territory of Jammu and Kashmir for all urban local bodies, urban development authorities and metropolitan regional development authorities.

2.2 Applicability of Building Byelaws

These building byelaws shall be applicable to all building activities undertaken by private or Government agencies and shall be read in conjunction with the Master Plan /Zonal Development Plan or any other statutory plan in force, if any, and notifications, if any, about the same and as amended from time to time and these building Byelaws may be reviewed after five years.

2.3 Applicability of Byelaws for all types of building developments and part construction

Except hereinafter or otherwise provided, these Byelaws shall apply to all development, redevelopment, erection and/or re-erection of a building whether temporary or permanent as well as to the design, construction of, or reconstruction and additions and alterations to a building.

i. Applicability of Byelaws for Part construction

Where the whole or part of a building is demolished or altered or reconstructed, except where otherwise specifically stipulated, these Building Byelaws shall apply to the whole building whether existing or new.

ii. Change of use / Occupancy.

Where the use of a building is changed, except where otherwise specifically stipulated, these Building Byelaws shall apply to all parts of the building affected by the change.

iii. Reconstruction

The reconstruction in whole or part of a building which has ceased to operate due to fire, natural collapse or demolition having been declared unsafe, or which is likely to be demolished by or under an order of the Authority as the case may be and for which the necessary certificate has been given by the Authority.

2.4 Existing approved building

Nothing in these Byelaws shall require the removal, alteration, or abandonment, nor prevent continuance of the lawfully established use or occupancy of an existing approved building unless, in the opinion of the Authority such a building is unsafe or constitutes a hazard to the safety of adjacent property or to the occupants of the building itself.

2.5 Building Permit Required

No person shall undertake any building operation/construction without obtaining a valid Building Permit prior to commencement of such activity. Issuance of a Building Permit by the BPIA shall mean an acceptance by the Authority that the design and specifications of the proposed building, for which Building Permit has been issued, conforms to these Building Byelaws/Building Regulations, and, that the

person holding the Building Permit may undertake construction of the proposed building. It does not constitute acceptance of correctness, confirmation, approval or endorsement of:

a) Easement rights of the plot on which the building is proposed

b) Workmanship, soundness of material and structural safety of the proposed building and shall not bind or render the Authority liable in any way in regard to (a) and (b) above.

Design and specifications of all aspects of a building shall be the responsibility of the owner of the building. Design and specifications of a building shall be mandatory and may be examined by the BPIA for ensuring the compliance of the building to these Building Byelaws/Regulations.

2.6 Procedure for obtaining Building Permit

Every person who intends to erect or re-erect or make material alteration in any place in a building or part thereof, within the local Area, shall apply in writing or online as prescribed to the BPIA, on prescribed format. Such notice shall be accompanied with the plans. Copies shall be retained in the office of the Authority for record after the issuance of permission and a copy shall be given to the applicant and the concerned Ward Officer.

2.6.1 Notice/Application

Application for Building Permit shall be made by the owner of the plot on which the building is proposed in the format prescribed by the agency (Appendix "A": Form for Application to Erect, Re-Erect or to make Material Alteration in any Place in a Building). Drawings, specifications and documents to be submitted along with Application for obtaining a Building Permit shall be as per these Bye- Laws.

2.6.2 Scrutiny of Application

The Authority shall undertake scrutiny of the Application for a Building Permit with all the requisite checklists. Any deficiency if found during scrutiny shall be communicated in writing to the applicant in the prescribed format within timeframe as defined in section 2.15 and 2.16. The applicant shall submit the revised application to comply with the objections raised within seven days. The Authority shall scrutinize the resubmitted plans and if, there are still some objections that shall be intimated to the applicant for compliance. It is further clarified that:

(a) No Application shall be valid unless the information required by the Authority under these Byelaws or any further information which may be required has been furnished to the satisfaction of the Authority.

(b) The Owner/Registered Technical Person shall be fully responsible for any violation of Master Plan/Zonal Plan/ Building Byelaws, architectural controls, lease deed conditions etc. In case of any default, they shall be liable for action. Any construction so raised shall be deemed to be unauthorized and shall be liable for action.

2.6.3 Grant or Refusal of a Building Permit

After receiving the replies, designs and specifications of proposed building, building permit shall be issued to the applicant when the BPIA is satisfied that the design and specifications of the proposed building comply with these building Byelaws. However, if after receiving the replies the proposed building does not comply with building Byelaws, Master Plan etc., the application may be rejected. Reasons for rejection shall be communicated to the applicant within fifteen days in the prescribed format (Appendix "A-7": Form for Refusal of Building Permit).

2.6.4 Exemption to Government:

No Government/Semi-Government organizations either Central or UT shall be exempted from complying with the provisions of the Byelaws/Regulations, unless 'Government' grants such an exemption.

2.6.5 Plans and documents accompanying applications:

The following plans shall accompany the application for grant of building permission:

(a) **Site Plan:** The site plan drawn to a minimum scale of 1:200/ 1'=16'-0″ or Graphic Scale and shall show the following:

(i) The boundaries of the site belonging to the owner with dimensions and of any contiguous land and other features including buildings up to 50'-0" surrounding.

(ii) The position of the site in relation to neighbouring streets with name of the street on which the building is situated;

(iii) The position of the site and all other buildings (if any) which the applicant intends to erect upon his land in relation to-

- The boundaries of the site and in case where the site has been partitioned, the boundaries of the portion owned by the applicant and also of the portions owned by other owners of that entire plot;
- The means of access from an existing street to the building.

(iv) Graphic Scale with north direction.

(v) Plot area, plinth area, floor space index/floor area ratio.

(vi) Location, name and width of each adjacent road or lane.

(vii) Such other particulars as may be prescribed by the Authority.

(viii) The applicant shall also submit landscape plan indicating all landscaping elements viz-a-viz structure wherever applicable.

(ix) Location with precise latitude and longitude/ key plan of the site not to scale but giving distance from known landmark.

(x) All utilities lines have to be marked in site plan wherever necessary.

(xi) The position of all the existing features like high tension line, telegraph and electrical poles /lines, underground pipe lines, trees, grave yards, religious buildings, railway lines, etc within a distance of 30 m from the nearest edge of the site, all major physical features of land proposed to be developed which include the approximate location and size of any water body, flood affected areas and contours at an interval of 0.3 m in case of the site which has a slope more than 1:20;

(b) **Building Plan**: - The details of the building which *inter alia* shall include plans, elevations and sections enclosed with the application shall be accurately drawn to scale of 1:100/1"=8'-0" or Graphic scale. Adequate arrangement for proper drainage shall also be shown. The plan shall include-

(i) Complete layout plan of the area or areas showing location and width of all street's dimensions, sizes and uses of all the plots.

(ii) Plans of all floors, accessory buildings and basement plan. Such drawings shall fairly indicate the size of rooms, size of windows and ventilators, size of door opening and stair runs.

(iii) Location of drains, sewers, public utility, electric lines, services, transformers.

(iv) Exact location of essential services such as W.C. sink, bath etc.

(v) Proposed and existing works should be clearly indicated in different colour (other than red) or in marking

(vi) Sectional drawings showing clearly the sizes of footings, thickness of basement walls if any, all roof slabs and floor slabs, ceiling heights and parapet height with their materials. The section shall indicate the drainage and slope off the roof. At least one section shall be taken through the staircase

(vii) Details of served privies (if any).
(viii) Street elevation and one more side elevation.
(ix) Dimensions of the projected portions beyond the permissible building line i.e. Chajja line.
(x) The existing ground level of the plot and proposed ground level in relation to abutting road level to be clearly mentioned in drawing.
(xi) Detailed parking plan.
(xii) Space used for storing construction materials during the time of construction.
(xiii) The owner shall file an undertaking stating that he shall leave and surrender land for road widening if required under rules, and he will not violate any rules, building byelaws, and that in case of violations the Authority shall be at liberty to summarily remove such deviations without prior notice and at the owner's cost. The form of undertaking shall be as at prescribed format (Appendix B: Handing Over Land Required for Road Widening)

(c) **Building Plans for Multi-Storeyed/Special Buildings**: For multi-storeyed buildings, which are above 15 M. in height the following additional information shall be furnished/ indicated in the building plans in addition to the item listed in section 2.6.5**.**

For all high-rise buildings which are 15 m or more in height and for special buildings like educational, assembly, institutional, business, mercantile, industrial, storage and hazardous and mixed occupancies with any of the aforesaid occupancies having covered area more than 500 Sq.m. (see also Part 4. Fire and Lift Safety of the National Building Code 2016), the building sanction shall be done in two stages. In case of important projects and projects having high complexity and sensitivity, the Authority may get the design, drawings and details of such buildings peer reviewed/proof checked before approving the same.

Stage 1: Planning clearance: The following additional information shall be furnished/ indicated in the building plan in addition to the items given in (b) as applicable:

(i) Access to fire appliances/vehicles with details of vehicular turning circle and clear motorable access way around the building;
(ii) Size (width) of main and alternative staircases along with balcony approach, corridor, ventilated lobby approach;
(iii) Location and details of lift enclosures;
(iv) Location and size of fire lift;
(v) Smoke stop lobby/door, where provided;
(vi) Refuse chutes, refuse chamber, service duct, etc;
(vii) Vehicular parking spaces;
(viii) Refuge area, if any;
(ix) Details of building services. Air conditioning system with position of fire dampers, mechanical ventilation system, electrical services, boilers, gas pipes, etc;
(x) Details of exits including provision of ramps, etc, for hospitals and special risks;
(xi) Location of generator, transformer and switchgear room;
(xii) Smoke exhauster system, if any;
(xiii) Details of fire alarm system network;
(xiv) Location of centralized control, connecting all fire alarm systems, built-in-fire protection arrangements and public address system, etc;
(xv) Location and dimensions of static water storage tank and pump room along with fire service inlets for mobile pump and water storage tank;

(xvi) Location and details of fixed fire protection installations such as sprinklers, wet risers, hose-reels, drenchers, etc; and

(xvii) Location and details of first-aid firefighting equipment/installations.

(xviii) Features relating to accessibility for the elderly and persons with disabilities, shall be in accordance with Chapter 13 of Part 3 'Development Control Rules and General Building Requirements' of the National Building Code 2016 for the designated buildings and areas.

(xix) An undertaking stating that debris or construction materials will not be stacked in public places leading to public nuisance. If the Authority finds that the applicant caused nuisance to public while executing construction necessary fine be levied as per notifications issued by the authority.

Stage 2: Building permit clearance: After obtaining the sanction for planning (Stage 1) from the Authority, a complete set of structural plans, sections, details, design calculations duly signed by engineer/structural engineer (see Annex A) along with the complete set of details duly approved in Stage 1 and certificate of completed structural design work (see Annex J) shall be submitted. A copy of the subsurface investigation report prepared and duly signed by the geotechnical engineer shall also be submitted. The building plans/details shall be deemed sanctioned for the commencement of construction only after obtaining the permit for Stage 2 from the Authority.

(d) **Service Plan:** Details of private water supply, sewerage disposal system, rain water harvesting system and details of building services, where required by Authority, shall be made available on a scale not less than 1:200/1"=16'-0" or Graphical scale rain water harvesting system need to be indicated.

(e) **Specification:** General specification of the proposed constructions including a detail calculation sheet of FAR/FSI in the proposals.

(f) **Signing the plans:** All the plans and drawings shall be duly signed by the owner and the Registered Technical Person preparing the plan, who shall be registered with the BPIA (please refer section CHAPTER 2: 2.19 for details).

(g) Any other statement as may be required by the Authority.

(h) **Ownership Document:** The applicant shall submit proof of ownership of the land, on which construction is proposed duly authenticated and verified by Revenue Authority (Assistant Commissioner -Revenue / Tehsildar as prescribed hereinafter).

(i) **Fees for permission**: Every applicant intending to construct or reconstruct or alter any building or part of building shall pay to the Authority, the various fees prescribed by the Authority. The applicant shall keep the proof of submission of fees in his/her records.

(j) **Withdrawal of application**: The applicant may withdraw the application and plans any time prior to its sanction and such action shall terminate all proceedings with respect to such application but the fees paid shall in no case be refunded.

(k) An undertaking shall be submitted along with the documents that the applicant shall be liable for action as per law for furnishing wrong information, fake /fraud documents or with-held any information having bearing for grant of building permission (Appendix "A-4": Undertaking for Payment of Other and Peripheral Charges).
Note: It should be on non-judicial stamp paper of specified amount attested by Notary Public / First class Magistrate.

(l) Appendix "A-5": Affidavit-cum-Undertaking

(m) The applicant shall also attach the documents of seismic resilience duly signed by the Structural Engineer where the land is situated in highly vulnerable zone and certificates shall also be submitted in case the building having built up area more than 500 Sq.m. or in case more than G+2 building.

(n) Standard Plan Permission: Each authority shall keep a set of approved standard building plans for plot sizes up to 150 Sq. m. In case the owner's /applicants plot is situated in approval layout, and he wishes to construct as per plans available with the authority, he may apply to the authority in the prescribed format indicating his choice of standard approved plan along with requisite fees and his ownership documents. The receipt of payment of fees to the authority in such case shall be considered as authorized building permission.

(o) In the case the applicant has fulfilled all the requisite formalities and the Authority has not decided on the notice of intent of the applicant within a maximum period of 60 days from the date of application, the permission shall be deemed to have been accorded, provided the proposed construction does not:

(i) Violate the planned development of J&K UT as envisaged by various departments and departmental agencies such as Municipal Corporation / Council / Committee, Development Authorities, Jal Shakti Department, UEED etc as applicable.
(ii) Violate zoning regulation under the Master Plan
(iii) Violate the land use of the area
(iv) Violate the FAR and set back norms
(v) Come in alignment of green belt
(vi) Effect the easement right of the adjacent plot holder and the title of the land is not subject matter of dispute before any forum

(p) **Notice for alteration:**

When the notice is only for an alteration of the building, only such plans and statement as may be necessary, shall accompany the notice.

No notice and building permit, is necessary for the following alterations, which do not otherwise violate any provisions regarding general building requirements, structural stability and fire safety requirements of these Bye- Laws;

(i) Plastering and patch repairs;
(ii) Re-roofing or renewals of roof including roof of intermediate floors at the same height.;
(iii) Flooring and re-flooring;
(iv) Opening and closing of windows, ventilators and doors not opening towards other's properties and / or public road/property;
(v) Replacing fallen bricks, stones, pillars, beams etc.
(vi) Construction or re-construction of sunshade not more than 75cms. in width within one's land and not overhanging over a public street;
(vii) Construction or re-construction of parapet not more than 1.5 m. in height and also construction or re-construction of boundary wall as permissible under these Byelaws;
(viii) White-washing, painting, etc. including erection of false ceiling in any floor at the permissible clear height provided the false ceiling in no way can be put to use as a loft etc;
(ix) Reconstruction of portions of buildings damaged by storm, rains, fire, earthquake or any other natural calamity to the same extent and specification as existed prior to the damage provided the use conforms to provisions of Master Plan/Zonal Plan;

(x) Erection or re-erection of internal partitions provided the same are within the purview of the Byelaws.

2.7 Procedure for obtaining a Revised Building Permit:

Changes or revisions in the sanctioned design and specification of a building may be made provided that a Revised Building Permit is obtained before construction is undertaken on the portion of the building that deviates from the Sanctioned Design and Specification. The changes shall be not more than 10%of built-up area for consideration as Revised Building Permit, for changes above 10%, a new application shall be made.

2.7.1 Notice/Application:

Application for Revising a Building Permit shall be made by the Owner of the plot on which the building is proposed in the format (Appendix "A": Form for Application to Erect, Re-Erect or to make Material Alteration in any Place in a Building).

2.7.2 Scrutiny of Application:

The Building Permit Issuing Authority (BPIA) shall follow the same procedure as that of issuing new Building Permit after collecting the fees as prescribed by the Authority. If the revised permit is applied during the execution of work of the building for which the revised permit is applied, then construction of the portion of the building for which revised permit is sought. for, shall not be commenced unless the revised permit is issued by the Authority.

2.8 Procedure for obtaining a Revalidated Building Permit:

2.8.1 Meaning of "Lapse of Building Permit"

A Building Permit shall mean to have lapsed if a material fact, based on which the Building Permit has been granted, no longer holds true, regardless of whether the BPIA was informed of the same or not. A lapsed Building Permit shall continue to remain lapse till the procedural requirements specified for revalidation of Building Permit in Building Byelaws are met with. A Building Permit shall lapse:

(a) If construction of the building is not executed and completed within the period of three years for residential, industrial and commercial buildings (4 storeyed) and four years for multi-storeyed buildings from the date of Building Permit.

(b) If the ownership of the plot changes after a Building Permit has been granted as stipulated in Building Byelaws

(c) If at any time before obtaining the completion certificate from the RTP, based on whose certification the building Permit was granted, ceases to be the Person on Record (POR) for the building, either because the Person on Record was relieved of his responsibility by the Owner, or because the Person on Record relieves himself of responsibility by informing the authority as stipulated in Building Byelaws and a substitute is not appointed in a period of 15 days.

Following lapse of a Building Permit, construction may no longer be undertaken on the plot for which the Building Permit was granted, until the procedural requirements specified for revalidation of Building Permit are met with.

2.8.2 Meaning of "Revocation of Building Permit"

Revocation of a Building Permit by the BPIA shall mean that the Building Permit shall no longer be valid, and that the permission granted by the BPIA to undertake construction stands withdrawn.

Following revocation of a Building Permit, construction may no longer be undertaken on the plot for which the Building Permit was granted. A Notice of Revocation of a Building Permit shall be issued in writing as per the format prepared by the BPIA.

2.8.3 Notice/Application

Application for Revalidating a Lapsed Building Permit shall be made by the Owner of the plot on which building is proposed; using the Format (Appendix "A- 8": Form of Revalidation) prescribed by the BPIA.

2.8.4 Scrutiny of Application

The Building Permit Issuing authority shall follow the same procedure as that of issuing new Building Permit after collecting the fees as prescribed by the Authority.

2.9 Procedure for obtaining a Building Use Permit:

2.9.1 Notice of Completion of Construction and Application for Building Use Permit:

The owner shall be responsible for notifying the BPIA of completion of construction, for certifying that the construction complies with the sanctioned design and specifications, and for applying for grant of a Building Use Permit. Notice of Completion of Construction, compliance certification and application for Building Use Permit shall be made in the format prescribed by the Authority (Appendix "A-6": Building Permit/Sanction) and shall be accompanied by documents and drawings as prescribed by the Authority.

2.9.2 Final Inspection:

Following receipt of the Notice of Completion of Construction, the authority shall undertake final inspection of construction for ensuring compliance to sanctioned design and specifications. The authority shall communicate the date and time of inspection to the Owner within 15 working days of receipt of Notice of Completion of Construction. In case the BPIA does not communicate decision to inspect construction within 15 working days of receipt of Notice of Completion of Construction, the Building Use Permit shall be deemed to have been granted by the authority and sanctioned use may be made of the building. If, on inspection, the authority is satisfied that the construction of the building complies with the sanctioned design and specifications, he shall grant a Building Use Permit and sanctioned use may be made of the building.

2.9.3 Communication of Queries

If the construction is found not complying with sanctioned design and specifications, the Authority shall communicate queries regarding the construction and/or directions to ensure compliance to the Owner, within 7 working days of the date of inspection. Failure to comply with directions, as may be issued by the authority may result in revocation of the Building Permit.

In case the Authority does not communicate queries regarding the construction and/or directions to ensure compliance within 10 working days of the date of inspection, Building Use Permit shall be deemed to have been granted by the BPIA and sanctioned use of the building may be made.

2.9.4 Grant or Refusal of Building Use Permit:

If the BPIA is satisfied that the construction of the building complies with the sanctioned design and specifications. The BPIA shall grant a Building Use Permit and sanctioned use may be made of the building. Reasons for refusal of Building Use Permit shall be communicated to the applicant within 15 working days for self-use homes and 30 days for other buildings by the authority.

2.9.5 Procedure for Obtaining Permit to Change Sanctioned Use of Building

(a) Application: Application for obtaining Permit to Change Sanctioned Use of Building shall be made by the owner of the plot. The Authority shall determine drawings, specifications and documents to be submitted along with Application for Permit to Change Sanctioned Use of Building.

(b) Fees for Obtaining Permit to Change Sanctioned Use of Building: The fees and other charges for obtaining Permit to Change Sanctioned Use of Building shall be as prescribed by the BPIA Authority.

(c) Scrutiny of Application:

(i) The BPIA shall undertake scrutiny of the Application for Permit to Change Sanctioned Use of Building and communicate to the applicant the date and time for plot/spot inspection, if required within 15 working days of the date of acceptance of the application.

(ii) Lack of compliance with Building Byelaws/Regulations and the master plan and/or queries pertaining to the application shall be communicated within 21 working days of the date of acceptance of the application.

(iii) Acceptance or rejection of compliant modifications in the application and responses to queries shall be communicated within 10 working days of receipt of the modifications and responses.

(iv) Acceptance or rejection of further compliant modifications in the application and responses to queries shall also be communicated within 10 working days of the receipt of modifications and responses.

(d) Grant or Refusal of Permit to Change Sanctioned Use of Building: A Permit to Change Sanctioned Use of Building shall be issued to the Applicant when the Authority is satisfied that the proposed change of use of the building complies with these Building Byelaws/Regulations and the Master Plan. Reasons for rejection of application shall be communicated to the applicant for his/her satisfaction.

2.10 Fees for permission:

(a) No Notice shall be deemed valid unless the person giving notice has paid the Application fees for the time being in force to the Authority and an attested copy of receipt of such payment is attached with the notice.

(b) In case the authority after processing the application of building permit, the building permission/development permission fees shall be charged by Authority prior issuance of such building/development permits.

(c) The fees for building permission will be prescribed by Government/ Urban Local Body / Urban Development Authority through notification.

2.11 Unauthorized Development

In case of unauthorized development, the Authority shall take suitable action, which may include demolition of unauthorized works, sealing of premises, prosecution and criminal proceeding against the offender in pursuance of relevant laws in force.

2.12 Unauthorized use of Building:

(a) Use of any building or a part of a building, without a Building Use Permit or in a manner that does not conform to its sanctioned use or after a Building Use Permit has been revoked, shall be deemed to be unauthorized use of Building.

(b) The BPIA may declare the use of any building to be an unauthorized use if it is convinced that the building is unsafe for habitation or if its use poses a danger to public health or safety.

(c) Dealing with unauthorized use of Building and unsafe buildings:

(i) If the BPIA deems the use of any building or part of a building to be an unauthorized use of building.

(ii) It shall, by a written notice, require the person making unauthorized use of building to stop the same forth-with.

(iii) If unauthorized use is not stopped, the authority may direct the person making such use to be removed from the building and may cause such necessary measures to be taken to ensure that the person does not re-enter the building without written permission of the BPIA Authority. The cost (s) of undertaking these measures shall be paid by the said person.

2.13 Duration of Sanction/Revalidation:

Once a building permit is sanctioned, it shall remain valid for three years from the date of sanction for residential, industrial, and commercial buildings (4 storeyed) and for a period of four years from the date of sanction for high-rise and tall buildings. However, the validity period of sanction in case of additions/alterations in both the cases, shall be two years from the date of sanction. The building permit shall be got revalidated in the prescribed form before the expiry of this period on year-to-year basis. Revalidation shall be subject to the Master Plan/Zonal Plan regulation and building Byelaws, as in force, for the area where construction has not started.

2.14 Responsibilities of owner and Registered Technical Person

2.14.1 Responsibilities of Owner:

The owner shall:

(a) Be responsible for ensuring that the building compliances with the Building Byelaws, master plan/zonal development plan.

(b) Shall make the application for a Building Permit.

(c) As prescribed appoint Registered Technical Person to undertake third-party verification of the structural design and specifications of the proposed building and, to verify and certify that the design and specifications compliance with these Building Byelaws as prescribed.

(d) As prescribed, Appoint an Engineer/Architect on Record to certify that the construction of the building has been undertaken as per detailed design and specifications stipulated by the R.T.P. and the Structural Engineer on Record as per clause 2.19.

(e) Obtain a Building Permit prior to commencement of building.

(f) Submit a Notice of Commencement of Construction, Notices of Progress of Construction, and a Notice of Completion of Construction to the Authority

(g) Obtain a Building Use Permit prior to making use or to occupying the building or a part of the building.

(h) Inform the BPIA in writing within 7 working days if for any reason he ceases to be the Owner of the plot for which the Building Permit has been issued or granted, regardless of whether building has commenced or not.

(i) Inform the authority in writing within 7 working days if for any reason, any of the Registered Technical Person appointed by him has been relieved of their responsibilities.

(j) Ensure that no construction is undertaken during the period that the Building Permit has lapsed or has been revoked.

(k) Submit Maintenance Certificates as required by authority from time to time.

(l) No ownership of a plot or building shall be changed or transferred by whatsoever means before issuance of Building Use Permit except with prior permission of authority. If the ownership has been changed without prior permission of authority, the building permit issued by the BPIA shall be deemed to have been revoked. This shall also apply to building under construction. The authority shall charge the fee it deems fit for change of ownership. However, the authority may on application by prospective owner, issue building use permit subject to payment of penalty of Rs. 5000/- if it is satisfied that the building is in conformity with the design and specifications as approved by the BPIA Authority.

2.14.2 Revocation of Building Permit and Penal Actions in case of misrepresentation

(a) The BPIA may revoke a Building Permit if:

(i) It determines that false statements were made, or material facts were misrepresented for obtaining the Building Permit.

(ii) At any time before obtaining the completion certificate, the Registered Technical Person based on whose certification the Building construction is carried out is de-listed by the Authority.

(b) Penal action against defaulting Architects/Engineers/ Groups/ Supervisors:

(i) The Authority reserves the right to take action and to debar/blacklist Registered Technical Person if found to have deviated from norms and regulations, professionally indulged in misrepresentation of any material fact or in supervision of the construction against the building Byelaws and the sanctioned building plans.

(ii) If the BPIA finds at any time any violation of the building Byelaws/Regulations/master plan or misrepresentation of fact, or construction at variance with the sanction or building Byelaws, inclusive of the prescribed documents, the authority shall be entitled to revoke the sanction and take appropriate action against such professionals who shall not be authorized to submit fresh plans till finalization of the case. Before debarring or blacklisting such a professional found to be indulging in professional misconduct or where she/he has misrepresented any material fact, the Authority shall give him/her a show cause notice with a personal hearing and pass a speaking order to debar her/him with full justification for the same. An appeal against order shall lie with the appellate authority i.e., J and K special Tribunal.

(iii) Penalties: Procedures for ascertaining whether a Registered Technical Person has failed in discharging his responsibilities in the context of these Building Byelaws/Regulations and the master plan shall be determined by the BPIA Authority etc. Penalties for failing to discharge responsibilities shall also be determined by the authority.

(c) Penalties to be levied for violations in process for obtaining building permit as per provisions of the Byelaws:

(iv) The Authority under provisions of the J&K Development Act, 1970, the J&K Municipal Corporation Act, 2000, J&K Municipal Act 2000 and shall take penal action for violation of Master Plan/ Zoning Regulations or Byelaws which may include stoppage of construction activity, demolition/ alternation and in paying fine and by imposing penalties.

(v) Should any dispute arise about the interpretation of any definitions or provisions of these rules, the decision of the BPIA shall be final. However, aggrieved persons may appeal to the appellate authority against such decisions and the decisions of the appellate authority shall be final and binding to all concerned.

(vi) Should at any time the Authority decide that certain provisions of these rules require change or suspension in certain areas for a comprehensive development of the area, the same can be made by the Authority with prior approval of the Govt.

(vii) Any person who contravenes any of the provision of these Byelaws or interferes or obstructs any person in discharging his legitimate duties which shall include to conduct inspection of the work at various stages and authorized in writing in this behalf by competent shall be liable to pay a penalty of Rs.10,000/-.

(viii) Any person who makes any building/structure functional on its completion without 'Building Use Certificate' as provided in bye rule 2.92.9.1, shall be liable to pay a penalty of Rs. Minimum 10,000/- and maximum Rs one lac. The persons who without express permission provides utility service shall also be liable to pay a penalty of Rs 10, 000/-.

2.14.3 Disputes regarding Interpretation of provisions of Byelaws

In case of any dispute arising regarding the interpretation of any of the provisions of these Byelaws the matter shall be referred to Government for a decision. Any action taken under any law /regulations on the subject before the enforcement of these Byelaws shall not be questioned.

2.15 Procedure for Building Permission of Residential Use Building

Table 2—1: Procedure for Building Permission of Residential Use Building

S. No.	For Plots in Government Colonies	For Other Plots
Step 1	• Preparation of buildings plans from Registered Technical Person (List given in Section CHAPTER 2: 2.19) (By the applicant)	
Step 2	• A 'provisional permit' may be issued by the Registered Technical Person or any other designated Technical person as notified. • The provisional permit will be issued by the Registered Technical Person in the prescribed format as prescribed by the Authority based strictly on the approved Master plans/Building Byelaws/Building Code in vogue and other norms as applicable with land title duly attested by the Concerned Agency. • The **Registered Technical Person** will submit the provisional permits to BPIA in the prescribed format as prescribed by the Authority, with undertakings through its nodal person in 3 days after the issuance of the provisional permit along with the types of fees applicable. • The **Registered Technical Person** will certify that the site is clear from any provisions related to water supply,	• The applicant will submit the Building Permit Application online in the prescribed Format as prescribed by the Authority. The plans will be submitted in the prescribed format attested by the **Registered Technical Person** with the undertakings as required that the application is based on approved Master plans/Building Byelaws/Building Code in vogue and other norms as applicable with land title duly attested by designated revenue authority. • After an application for erection, re-erection or alteration of a building has been received, the designated person shall immediately forward a copy of the plans to relevant agencies for their clearance with or without condition.

	electric lines, sewers and drains, waterbodies as prescribed in the master plan/building byelaws/building code/applicable norms.	
Step 3	Scrutiny of Application	
Step-3.1	After an application for erection, re-erection or alteration of a building has been received, the designated person shall immediately forward a copy of the plans to respective agencies for clearance. The timelines for approval are described in section 2.17.	
Step-3.2	The Building Permit Issuing Authority will vet the building permit in 15 working days or return it to RTP with comments.	The BPIA Authority shall give clearance in one month positively. In case the NoC is refused, reasons for doing be conveyed in writing. In the case of High Rise and Tall Buildings the approval may take 2 months because of 2 step process described in 2.62.6.5
Step 4	Notification to the Applicant in case of deficiency in the submitted information shall be given within 5 days from step 3	
Step 5	The designated person will issue the building permit based on the undertaking of RTP at Step-3. The construction can be started by the applicant after the vetting of the Building permit by **Building Permit Issuing Authority** or after 30 days from the date of submission of provisional building permit by the **Registered Technical Person** to the Building Permit Issuing Authority through the notified nodal person.	The BPIA Authority may issue permit, with modification or refuse the permission. The applicant will submit all types of fees as applicable before the issuance of permit.

2.16 Procedure for Building Permission of Non-Residential Use Building

Table 2—2: Procedure for Building Permission of Non-Residential Use Building

S. No.	All Non-Residential Buildings	High Rise / Tall Building / Special Buildings
Step 1	Preparation of buildings plans from Registered Technical Person (List given in Section CHAPTER 2: 2.19) (By the applicant)	
Step 2	Scrutiny of Application	
Step-2.1	After an application for erection, re-erection or alteration of a building has been received, the designated person shall immediately forward a copy of the plans to respective agencies for clearance. The tentative timelines for approval are described in section 2.17	

Step-2.2	BPIA shall give clearance in **one month**. In case the NoC is refused, reasons for doing be conveyed in writing.	The BPIA Authority shall give clearance in two months positively. In case the NoC is refused, reasons for doing be conveyed in writing. Please refer the 2-step process for submission of required drawings as described in section 2.6.5 (c)
Step 3	Notification to the Applicant in case of deficiency in the submitted information shall be given within 5 days from Step 2	
Step 4	The BPIA may issue permit / issue permit with modification / refuse the permission within one month from the date of receipt of application.	The BPIA may issue permit / issue permit with modification / refuse the permission within two months from the date of receipt of application.

2.17 Timelines for clearance from various agencies

Recognizing the concern for streamlining the procedures for clearances to be obtained from various departments in least possible number of procedures and number of days, in this model is given ensuring that the entire process of Pre -Construction approvals should be completed within one/two months:

Table 2—3: Timelines for clearance from various agencies

S.No	Type of approval	Approving Authority	Stage of project	Duration (Days)
A	Intimation of Disapproval (IoD)	Municipal Authority	Pre-construction	7
B	Site & Building Layout approval	Municipal Authority	Pre-construction	7
C	Internal NOCs (Part of OBPS)	PDD, PWD, PHE, Town Planning, Sewerage & Drainage	Pre-Construction	15
D	External NOCs			
	Fire Fighting Scheme (for High Rise and Tall Buildings)	Fire Department	Pre-Construction	15
	Ancient Monument Approval	Archaeological Survey of India (ASI) and JK Archaeology/Heritage Preservation Act		
	Environment Clearance	Ministry of Environment, Forest and Climate Change	Pre-construction	
	Borewell Registration Certificate	Central Ground Water	Pre-construction	

		Authority		
	AAI Height. NoC	Civil Aviation Department	Pre- construction	
	Pollution Clearance	State Pollution control Board	During construction	
	Defence Clearance	Ministry of Defence	Pre-Construction	
E	Building Permit Issue (All NOCs)	Municipal Authority	Pre-construction	30 (60 days for High Rise and Tall buildings)
F	Construction Complete	Construction Time depends on the project Scale and Size		
G	Building Use Certificate	Municipal Authority	Post construction	15 days for self-use homes & 30 Days for other buildings.

2.18 No Objection Certificates required for Building Permission:

1. Title Verification: NOC from the Revenue Department shall be required for plots other than Govt. Colonies and will be integrated into OBPS.
2. Fire & Emergency Services: NOC shall be required for Assembly and intensive Commercial and residential Use buildings which *inter alia* includes R3, C3, C4, C5, PSP1, PSP2, PSP3 and PSP4 or as notified by the ULB/ULA.

Note: The NOCs' from other departments like PDD, PWD, PHE, Town Planning, Sewerage & Drainage shall be integrated with in OBPS for the concerned Local Bodies and Authorities.

2.19 Qualifications for Registered Technical Persons

a) Minimum Qualifications and Competence Requirements:

The authority shall empanel Town Planners, Architects, Civil Engineers, Structural Engineers, Geotechnical Engineers, Urban Designers, Landscape Architects, Electric Engineers as Town Planners on Record, Architects on Record (AoR), Engineers on Record (EoR), Structural Engineers on Record (SEOR), Geotechnical Engineers on Record (GTEoR), Urban Designers on Record (UDoR), Landscape Architects on Record (LAoR), Electric Engineers on Record (EEoR), Surveyor 1 & Surveyor II etc respectively. Applications for listing should be made in the format prescribed by the BPIA Authority from time to time etc. The UT may also create a statutory board or committee for the accreditation of the professionals.

The BPIA Authority shall determine minimum qualifications and competence requirements for being considered for listing as Persons on Record from time to time.

Table 2—4: Minimum Qualifications and Competence Requirements

S.N.	Professional	Qualification	Competence/Functions
1	Architect on Record (AoR)	A technical person having valid registration of the Council of Architecture.	The registered architect shall be competent to carry out the work related to the building/development permit as given below: a) Prepare and sign all plans, sub-divisions/layout plans and information connected with building permit/licence except engineering services of multi-storeyed/special buildings along with supervision. b) Issue Provisional Permission up to the plot size prescribed in these byelaws or prescribed in the relevant orders/ notifications. c) Issuing certificate of supervision and completion of all buildings pertaining to architectural aspects.
2	Engineer on Record (EoR)	Graduate in civil engineering from recognized Indian or foreign university as recognised by AICTE and registered with valid membership (Civil) of the Institution of Engineers, India.	The registered engineer shall be competent to carry out the work related to the building/development permit as given below: a) Prepare and sign structural drawings and service plans and information connected with building permit. b) Preparation of structural drawings, details, and calculations of buildings on plot up to 500 m2 and up to 5 storeys or 16 m in height, all service plans and related information connected with development permit of area up to 1 hectare for metro-cities and 2 hectares for other places. c) Issuing certificate of supervision for development of area up to 1 hectare (for metro and Class I cities) and 2 hectares for other places pertaining to building layout, Building structure, civil works, and service installations; d) Issuing certificate of supervision and completion of all buildings including structure and building services.

3	Structural Engineer on Record (SEoR)	Postgraduate in Structural Engineering from recognized Indian or foreign university as recognised by AICTE and Corporate Member (Civil) of Institution of Engineers (India), minimum 3 years' experience in structural engineering practice with designing and field work. NOTE —In case of doctorate in structural engineering, the experience required would be one year.	The registered structural engineer shall be competent to prepare the structural design, calculations and details for all buildings and undertake their supervision.
4	Town Planner on Record (TPoR)	Graduate or post-graduate degree in Town Planning/Urban Planning or related field or equivalent degree as recognised by AICTE and registered with valid membership of the Institute of Town Planners, India.	The registered town planner shall be competent to carry out the work related to the development permit as given below: a) Preparation of plans for land sub-division/ layout and related information connected with development permit for all areas. a. Issuing of certificate of supervision for development of land of all areas. NOTE — However, for land layouts for development permit above 5 hectares in area, landscape architect shall also be associated, and for land development infrastructural services for roads, water supplies, sewerage/drainage, electrification, etc, the registered engineers for utility services shall be associated.
5	Landscape Architect on Record (LAoR)	Bachelor or Master's degree in landscape architecture from recognized Indian or foreign university.	The registered landscape architect shall be competent to carry out the work-related to landscape design for building/development permit for land areas 5 hectare and above. In case of metro and class I cities, this limit of land area shall be 2 hectare and above. Note— For smaller areas below the limits indicated above, association of landscape architect may also be considered from the point of view of desired landscape development.

6	Urban Designer on Record (UDoR)	Master's degree in Urban design or equivalent from recognized Indian or foreign university.	The registered urban designer shall be competent to carry out the work related to the building permit for urban design for land areas more than 5 hectare. She/he shall also be competent to carry out the work of urban renewal for all areas. Note— For smaller areas below the limits indicated above, association of urban designer may be considered from the point of view of desired urban design.
7	Surveyor - I	Three Years Diploma in Architecture Assistantship	The registered Surveyor-I shall be competent to carry out the work related to the building permit as given below: Prepare and sign plans • For residential: Up to 1 Kanal Plot (3 storeyed building) • For Commercial: Up to 10 Marlas Plot (3 storeyed building)
8	Surveyor - II	Two-year draftsman ship in Civil	The registered Surveyor-II shall be competent to carry out the work related to the buildings as given below: Prepare and sign plans For residential: Up to 10 Marlas Plot (2 storeyed building) For Commercial: Up to 7 Marlas Plot (2 storeyed building)
9	Supervisor on Record (SoR)	Diploma in civil engineering from recognised institute with 2yrs working experience or Civil draftsman ship from ITI with 5 years' experience under a qualified Architect/Civil Engineer for building construction and Supervision.	The registered supervisor shall be competent to carry out the work related to the building permit as given below: All plans and related information connected with building permit for residential buildings on plot up to 100 m^2 and up to two storeys or 7.5 m in height.; and Issuing certificate of supervision for buildings as above.

10	Plumber on Record (PoR)	ITI in Plumbing, with minimum 2yrs experience of execution of sanitary and plumbing works under any government department/local body or a qualified Architect/Engineer. knowledge of working drawings and dimensioned sketches.	A plumber shall be competent to do the following jobs: a. Execution/ supervision of sanitary works up to 500 Sq.m. plot size and 4 storeyed buildings.
11	Electrician on Record (EloR)	ITI in Electrical, with minimum 2yrs experience of execution of electrical works under any government department/local body or a qualified Architect/Engineer. knowledge of working drawings and dimensioned sketches.	An electrician shall be competent to do the following jobs: a. Execution/ supervision of Electrical works up to 500 Sq.m. plot size and 4 storeyed buildings.
12	Fire Consultant on Record (FCoR)	As prescribed by Chief Fire Officer, Town/City Fire service	

b) Listing Fee and Security Deposit:

Listing Fee and Security Deposit for listing, as Persons on Record with the BPIA shall be determined by the authority and notified by the Housing and Urban Development Department.

CHAPTER 3: STREAMLINIING OF BUILDING PLAN APPROVALS

3.1 Clearances at Master Plan level

Individual construction proposals should not generally require separate clearances from various authorities each time. Such clearances should be integrated into the DCR of the Master/Development Plan of the concerned city. The areas unaffected by any of the restrictions should be clearly marked out and mapped on a GIS platform. Area zones of differential control regulations (within the city) by any of these agencies may also be mapped accordingly. This will result in a composite map of the city with various control regulations as per the various agencies clearly marked on the map. Thus, the sites which are located outside these restricted/regulated areas would not require clearance from the respective authorities, thereby reducing the clearance process significantly. Following are the clearances which should be integrated into the city Master Plan:

Table 3—1: Minimum Clearances from various agencies proposed to be integrated in Master Plans

S.N.	Name of Agency	Type of Clearance	Area of Influence
1	National Monuments Authority through Local BPIA	Ancient Monument approval	As prescribed in the AMASAR (Amendment and Validation) Act, 2010 for protection of monuments. And J&K Archaeology / Heritage Preservation Act
2	Ministry of Environment, Forest and Climate Change	Environment Clearance (EC)	As prescribed in the statutory provisions for EIA and clearance based on the size of the project in accordance with Environment protection Act,1986
3	Central Ground Water Authority through Local BPIA	Borewell Registration Certificate	As per Guidelines/criteria for evaluation of proposals/ requests for ground water abstraction, 2012
4	Ministry of Civil Aviation	AAI Height. NoC	Critical and non-critical area as identified by AAI
5	Ministry of Defence	Defence Clearance	Areas in and around Defence Establishments as identified by MoD.
6	Ministry of Railways	Area clearance	Buffer zones as prescribed by Railways along the Rail tracks/depots/yards etc.

3.2 Options for reducing the timelines for approvals

The above suggested steps are only indicative, however, there is scope for streamlining the procedures for clearances to be obtained from various departments in the least possible number of procedures and number of days. Some of the options which can reduce the time taken for various procedures are:

a) Online sanctions: ULBs/Development Authorities have introduced online sanction for issuing building plan and completion certificate. The process involves use of software tools for scrutiny of building plans. All the documents are required to be submitted electronically using a portal. In case the building plans do not conform to the DCR the deviations are listed out in form of a report and intimated to the applicant/engaged Competent Professional for building plan design, vide an online ID in his account.

b) Empowering Professionals: Empowering Competent Professionals as prescribed for building plan design will facilitate to streamline the procedure for obtaining approvals. The urban local body or urban local authority or by the Housing and Urban Development of the UT of J&K shall empanel such professionals based on their qualifications and track record. The empowered professionals can, also on behalf of developers/builders submit the documents required at the time of various clearances. This has been comprehensively defined in the chapter 2.

c) Creating a Cell in ULBs: There is a need for creating a specialized cell in ULBs and UDAs which is manned by qualified personnel conversant with the procedures and the interpretation of development regulations. The Cell should be headed by a qualified Town Planner who should *inter alia* lead a team of Architects, Engineers, Environment Specialist and Legal Experts among others. The cell should have the dedicated provision for online submissions and conveying the on-line approvals as well. This will require robust software and hardware system capable of handling large digital files.

d) Single Window System: All agencies involved in the process need to be integrated in a single electronic facility with proper coordination and monitoring of timelines. The Municipal Corporation/Council/ Committee needs to constitute teams comprising of experts from various agencies to be formed under the overall supervision of a Town Planner designated to assist developers/ builders with complex projects and to constantly improve the sanction process by cutting down delays.

e) Integration of agencies outside the ULBs for online clearances: Various agencies like AAI, NMA, SUAC, Fire Services, Department of Industries, Ministry of Defence, etc grant NOC clearance to the building plans in certain specific cases. This may be streamlined for Ease of Doing Business by following 2 directions as given below -

- **i.** Building permission for specific areas /sizes are to be examined by the external agencies. These areas should be plotted on GIS based colour-coded map which may be made available in the public domain on the agency's website, with clearly identified co-ordinates so that building falling only in these areas need to approach the concerned agencies for obtaining clearances. These maps may also be made available on the website of the concerned municipal bodies.
- **ii.** The external agencies also need to develop online clearance/NOC application systems which should suitably be integrated with the online building approval systems of the municipal bodies. The two systems should be so compatible that the building plans submitted to the local bodies may after scrutinizing with colour-coded zoning maps shall be e-transmitted to the external agencies. The agency concerned should give clearance within a period of maximum of 10 days with no requirement of applicant to physically visit the offices of the agencies. The NOC may again be e-transmitted to the concerned local body on the building permission system so that the ULB shall use those for final approval.

3.3 Development of an IT enabled team to operate the Building Permission Online:

a) The IT person shall be able to analyse and identify the issues regarding the building permit in the existing system as well as for the system of Single Window Clearance to be adopted in the future

b) The IT team shall enable a preview selection mode so that the applicants after submitting all the documents can preview it before final submission in the existing online system.

c) The IT team shall also add the total time frame for clearance at each step in the existing online system dashboard.

d) The IT person shall coordinate with various departments which issues NOCs and shall also identify the total time required in issuing it.

e) Various issues in cross verifying the uploaded documents for e.g uploading of digital signature, online payments, inspection etc. shall be listed in order to improve the existing online approval system as well as for shifting to the automated building approvals in the future

f) The physical submission of building permit documents shall be removed by introduction of Pre-DCR software to the applicants.

g) The IT team shall enable online tracking system of NOCs if applicable through the existing online system for the applicants.

h) The IT team shall provide a Pre-DCR formatted software to the consultants (Architects/Engineers/Draftsman etc.) till the time automated building approval system is not introduced.

i) The IT team shall issue an applicant no. through which if an applicant uploads the requisite documents thereafter after verification by the IT team can download the Occupancy Certificate.

3.4 Other Suggestions to enhance ease of doing business:

Some other suggestions, regarding Fast-Track construction permits are:

a) Citizens' Charter

A Citizens' charter lists out the timelines and upper limits of time for the delivery of citizen services of the organization. The objective of issuing the charter is to improve the quality of public service in terms of timely delivery. Such charters should be brought. out by all municipalities to maintain high standards of accountability and transparency. The standards of service to be provided, the maximum number of days required for building approvals and the standards procedures should be listed out in the citizens' charter. Some states have gone a step further and introduced a citizen service delivery guarantee act whereby the time lines prescribed by a citizen charter are made statutory and binding on officials.

b) Capacity Building

Capacity building measures are to be adopted for such functionaries to identify Training Needs (TNA) and other technical requirement of duties that they are required to discharge. Fresh recruitments commensurate to the technical qualification/ experience are to be made by the UT, if there is complete absence of the technical expertise needed for the said services.

c) Empowered Committees

The Authorities may also consider constituting 'Empowered Committees' or 'Peer Expert Groups' for undertaking scrutiny and approval. This committee can be manned as per the requirement and area of more than one municipality can be put under its jurisdiction. This has special significance for tall buildings.

d) Simplification of Byelaws

The building byelaws have been simplified for easy comprehension of lay person as well as professionals involved in developmental activities. The simplification process should also include the process of application, the filling up of forms and streamlining the process of application

CHAPTER 4: PROCEDURE DURING CONSTRUCTION

4.1 Right. to Inspect Construction:

4.1.1 Right. to inspect construction at any Time:

a) All buildings for which Building Permit is issued are subject to inspection by the concerned officer and the authority reserves the right. to inspect such buildings at any time during the period of construction without giving prior notice of its intention to do so. Owner of the plot and/or any person undertaking construction shall permit authorized officers of the ULB/ULA to enter the plot and inspect the building for the purpose of enforcing these Building Byelaws.

b) The structural design, constructional standard etc.; of all high-rise and tall buildings are required to be supervised during construction at three stages at (1) foundation (2) plinth stage /ground floor and (3) upper floor/Roofing stage in the manner described below:

c) The individual/promoter is required to get his construction checked at above mentioned three stages of construction by the Authority. Necessary certificate in the format prescribed by the authority shall be submitted to the BPIA at each stage before proceeding with next stage of construction Next stage of construction shall not be proceeded with unless certificate of completion of preceding stage is examined and cleared by authority. The clearance through "Go-ahead Certificate" at each sage shall be issued by authority within seven working days from the date of receipt of completion certificate at each stage. Failure to comply with this provision shall be deemed that the building permission has been revoked.

4.1.2 Information to be prominently displayed on Site:

It shall be the responsibility of the Owner to erect a notice board on the plot displaying key information pertaining to the building within 15 working days of issue of Building Permit. The notice board should be prominently visible, easily readable and should be located next to the primary access to the plot. The notice board/s should be maintained for the entire Period of Construction up to issue or grant of Building Use Permit. Failure to comply with this Building Byelaw may result in revocation of the Building Permit.

4.1.3 Documents and Drawings to be maintained on Site

It shall be the responsibility of the Owner for the building to keep all the documents and drawings approved on the site, at all times after issuing Notice of Commencement of Construction to the Authority up to the issue or grant of Building Use Permit. These documents should be made available to any authorized officer of the Authority inspecting the site for the purpose of enforcing these Building Byelaws. Failure to comply with this Building Byelaws may result in revocation of the Building Permit.

4.1.4 Reducing Inconvenience and Ensuring Safety during Construction

It shall be the responsibility of the Owner to certify that no building material, building equipment or building debris is stacked, stored, left or disposed of outside the plot for which Building Permit has been granted, on any public street or space. Failure to comply with this Building Byelaw may warrant penalties on the owner of the plot. The levy of penalties shall be notified separately.

4.1.5 Barricading the Plot during Period of Construction:

It shall be the responsibility of the owner to ensure that plot on which construction is being undertaken, is adequately barricaded. Specifications for barricading the plot shall be adhered to

strictly. Failure to comply with this Building Byelaws may warrant penalties on the owner of the plot for not providing adequate barricading of the plot during Period of Construction.

4.1.6 No Damage or Undue Inconvenience during Construction:

a) It shall be the responsibility of the Owner to undertake all necessary measures to ensure that no damage is caused to adjoining properties due to construction.

b) It shall also be the responsibility of the Owner to undertake all necessary measures to ensure that no undue inconvenience is caused to the public, due to factors such as noise, dust, smell or vibrations.

c) It shall also be the responsibility of the Owner to undertake all necessary measures to ensure that traffic is not disrupted due to construction.

d) It shall be the responsibility of the Owner to carry out all instructions given in writing by authorized officers of the authority as the case may be to ensure public safety and reduce inconvenience.

e) Failure to comply with this Building Byelaw may warrant penalty as prescribed by authority for violation of any of the sub-rule. However, before levy of penalty, an opportunity of being heard shall be provided to owner of the plot.

4.1.7 BPIA Not Liable for Ensuring Safety during Construction:

The Owner shall be responsible for ensuring that all necessary measures for safety for all are taken on site. Grant of Building Permit, Permit to Use Abutting Street for Construction, grant of Building Use Permit for part of a building, or issuing of any instructions to ensure public safety or reduce inconvenience, does not render the authority liable for any injury, damage or loss whatsoever that may be caused to any one in or around the area during the Period of Construction. In all such cases owner shall be wholly and solely responsible.

4.1.8 Notice for Commencement of Construction:

The Owner of the building shall notify the authority of his intention to commence construction at least 7 days prior to commencing construction by filing a Notice of Commencement of Construction in the format prescribed by the authority. This shall not be applicable to self-use homes.

4.1.9 Authority to be notified of Progress of Construction:

The Owner shall be responsible for notifying the BPIA of the progress of construction. Notices of Progress of Construction shall be made in the format prescribed by the authority.

4.1.10 Permit to Proceed with Construction Required:

No construction shall be undertaken after filing Notice of Progress of Construction. A Permit to Proceed with Construction from the authority is required to undertake further work. Permit to Proceed with Construction shall be issued in the format prescribed by the authority. Application for grant of Permit to Proceed with Construction shall be made in the format prescribed along with Notice of Progress of Construction.

4.1.11 Grant or Refusal of Permit to Proceed with Construction:

a) The authority may undertake inspection of construction for compliance to sanctioned design and specifications. In the case that the authority decides to inspect site of construction, it shall communicate the date and time of inspection to the Owner of the building within 5 working days of receipt of Notice of Progress of Construction.

b) In case BPIA does not communicate decision to inspect construction site within 5 working days of receipt of Notice of Permit to Proceed with Construction shall be deemed to have been

granted by the authority unless otherwise communicated, and construction may be undertaken on the site for building.

c) If the authority undertakes inspection and is satisfied that the construction of the building complies with the sanctioned design and specifications, it shall grant a Permit to Proceed with Construction and further construction may be undertaken on the building.

d) If the construction is found not to comply with sanctioned design and specifications, it shall communicate queries regarding the construction and/or directions to ensure compliance to the Owner within 5 working days of the date of inspection. The Owner shall be responsible for ensuring compliance to such directions as may be issued. Failure to comply with directions, as may be issued by the authority may result in revocation of the Building Permit.

e) In case BPIA does not communicate queries regarding the construction and/or directions to ensure compliance within 7 working days of the date of inspection, Permit to Proceed with Construction shall be deemed to have been granted and the construction may be undertaken on the building.

f) The Owner shall respond to queries and notify the authority of having undertaken compliant modifications. If the authority is satisfied that the construction of the building complies with the sanctioned design and specifications, it shall grant a Permit to Proceed with Construction and further construction may be undertaken on the building.

4.1.12 Offences and Penalties:

Penalties for not complying with Building Byelaws/Regulations shall be stipulated by the BPIA. Failure to notify the BPIA before commencing construction may result in levy of penalty, which shall be decided by the BPIA.

The BPIA may also levy the penalties on defaulting officials for deviating from prescribed timelines for clearance from the agencies. The penalties for the delay will be notified separately.

CHAPTER 5: DEVELOPMENT CONTROL/ZONING REGULATIONS

5.1 Land-Use Zoning

5.1.1 Land-Use & Uses Permitted

The Proposed Land-use Plan in the respective Master Plans/Zonal Development Plans should be referred for the land use of a given land parcel.

All the towns should have a master plan and in case of towns not having even the draft master plans, towns should have a coarse land use plan which will be called a structure plan. The structure plan will also delineate the core area of all towns/municipalities/area of council.

5.1.2 Proposed Zoning

Table No.5 - 1 Proposed Zoning

Sr. No.	Code	Description of Uses in the reference code
Residential (R)		
1.	**R1**	Detached Dwelling units, Semi-Detached Dwelling units, Row Houses, Common Places (such as community Parks), Convenience Shop (Single shop), Meditation/Yoga Centre
2.	**R2**	Low Rise Apartments, Farm House, Cottage industries (not involving the use of or installation of any kind and which create noise, vibration, fume, dust etc. and shall not be permitted in tenement dwellings, flats, playfield, garden), Gyms, Orphanages, Old age Home, Paying Guest House, Part Portion of Residential Building for Office use by Professionals Such as Advocates, Doctors, Architects, Engineers, CA, Hostel, Dharmshala, Single Room Occupancy, Pre-School, Boarding and lodging (accommodation for transit employees of Govt. / Local bodies), Medical and Pet clinics, Dispensary, plant nursery, Library, Common Places (such as community Parks), Convenience Shop (Single shop), Religious structures, Atta Chakki.
3.	**R3**	Group Housing, Flats/High Rise Apartments, Affordable Housing, Cottage Industries, Plotted Residential Development, Residential flat, Common Places (such as community Parks), Multi-level Parking.
Commercial (C)		
4.	**C1**	Retail Shops (such as Bakery / Confectionary items, Grocery/ General store, Dairy products, stationary, books, Gifts/ Book binding, Cyber cafe/ Phone booth, LPG booking office/ LPG showroom excluding cylinders, Laundry/ Dry cleaning/ Ironing shops, Sweet shops, Pan shops, Tea/ Coffee shops, Chemist / Medicine shops, Optical shops, Home Appliances/ Electronic repair shops, Photo studio, Cable / DTH office, Cycle Repairs shops, Ration and kerosene distribution shops, Vegetables/ Fruits/ Flowers/Mutton shops/ Poultry stalls, Photocopy/ FAX/ STD PCO, Computer Service centres, Hair cutting saloons/

		Beauty Parlour, Tailor shop/ Boutique, Newspaper shops, Ticket Booking shops, ATM, Eateries shops excluding sitting provisions, Audio-video libraries, Mobile phone shops, courier,), Retail Clusters/ Shopping clusters, Common Places (such as community Parks), clinic, Pet Clinic, Vet Clinic, offices of professionals (like advocates, doctors, architects, engineers, chartered accountant, town planner etc.), power looms up to 2HP
5.	**C2**	Pathology Laboratory, Scanning Centres, Kerosene Depots, Hotels, Restaurants, Corporate offices, Call centres, Training centres, Recreational clubs, Social clubs, Medical and Pet Clinics, Fitness centres, Nursing home, Maternity home, LPG Retail outlet, Information Technology activity centres, Hardware shops, Departmental stores, Guest House. Professional offices, Taxi stand/ three-wheeler stand, Conference Hall, Commercial complex, Yoga Centre, Education Coaching centre, Banks
6.	**C3**	Shopping Mall, Convention centres, Public Community hall, Museum, , Entertainment and Amusement centres, Hospitals, Development activity centres related to Information Technology, Exhibition centres, Go downs, Financial institutions, Restaurants, Hotels (All types excluding hotels * rated 4 and 5), Motels, Sports complex, Swimming pools, Agro-based mandis, Fruits mandis, Vegetable mandis, Junk yards, Cold storage, Goods markets, Petrol Pumps, Workshops, Garages, Auto service stations, Charging stations for Electrical Vehicles, CNG Filling stations, Theatre, Pollution free Small & Medium Scale Industry including MSME, Conference Hall, Multi-level Parking, Education Coaching centre, Commercial & Corporate offices, Banks, power looms up to 10HP, Junk Yards (on internal roads only), Agro Mandis
7.	**C4**	Hotels with *4 and 5 Ratings, Banquet halls, Commercial Complexes, Wholesale market, Timber mart, Cinema and Multiplexes, Go downs
8.	**C5**	Auditorium, Planetarium, Stadium, Warehouses, Weigh Bridge, Heavy goods markets
Public-Semi-public / Institutional (PSP)		
9.	**PSP1**	Play-Way Schools, Creches, Preschools, Primary schools, PHC, clinic, Dispensary, Sub offices of Govt. utilities, Police Post, Common Places (such as community Parks, Gardens), Banks
10.	**PSP2**	Middle Schools, High Schools, Higher Secondary schools, Integrated Residential schools, School for Mentally / Physically Challenged, Police stations, Post offices, Hostels, Spastic Rehabilitation Centres, Orphanages, Govt. Dispensaries, Nursing Homes, Hospital up to 20 Bed, Public Library, Community hall, Public distribution system shops, Bill collection Centres, Traffic and Transport related offices, Exclusive places of worship, Social and welfare centres, Local Municipal facilities, Art Galleries, Museum, Police Station, Fire Sub-Station, Zonal Level Govt. Utilities, Common Places (such as community Parks, Gardens).
11.	**PSP3**	Colleges, Civil Hospital, Hospital more than 20 Bed, Hospital for infectious diseases, Mental Hospital, Parks and playgrounds Maidans and Stadiums, Dharmshalas, Hostels, Dhobi Ghat, Place of worship along with ancillary uses,

		Higher Educational Institutions, Colleges, Fire stations, Govt. Buildings, Auditoriums, Cultural complexes, Fire stations, Broadcasting and Transmission stations. Jails, Police headquarters, Police lines, Solid waste dumping grounds / sites, Bus and Railway passenger terminals, Monuments, Exhibition centres, open air theatre, Recreational clubs, Court, Universities, Polytechnic, Specialized educational institute, All Govt. Uses., Common Places (such as community Parks, Gardens), Multi-level Parking, Office without Commercial Activity.
12.	**PSP4**	Medical College and Research centre, Universities and Deemed Universities
Mix Land Use (M)		
13.	**M**	All activities in in the mixed used zone as given in the table 5-2
Recreational Use (RC)		
14.	**RC**	Public Parks, Gardens, Botanical Gardens, Sports Related Activities, Open Spaces, Water Sports, Golf Course, Amusement Park, Recreational Club
Agricultural/Urban Agriculture Use (Ag)		
15.	**Ag**	Agriculture, Horticulture, Dairy, Poultry Farm, Plant Nurseries, Agro-based Industries excluding hazardous chemicals, cottage industries, dwelling of the people engaged in farm (rural settlement), Farmhouse, Solar Project, Windmill, public utilities, flour mills The following uses shall be allowed in favour of Bonafide residents of the village with last 20 years ownership of land: Residential house, convenient shops, work centre, Atta Chakki, clinics/dispensary, school, repair shop, cold storage and rice shellar. This is subject to production of documentary proof.
Transportation & Communication (TC)		
16.	**TC**	This land-use is meant for roads, bus-stands, bus-terminal, Parking, Multi-Level Parking, railway station, railway line & airport, Communication establishments, Integrated Freight. Complex (Wholesale shops and subsidiary storage capacity, Parking facilities, Go downs, cold storage, Service/repair facilities, Rest/recreation for drivers, Weighing Bridges, Office space, Facilities like banking, postal truckers, etc. required for business transactions, Amenities for wholesales, truckers and their employees, Areas for shops, eating houses and other service, establishment, Provision of lighting, water supply and garbage, sewerage disposal), Hostel, Guest House, Boarding House and Lodging House, Filling Cum Service Station, Filling Station, Compressed Natural Gas (CNG) Dairy Station, Petrol Pumps and Service Stations, workshops & garages for LMV & HMV, Warehouse, storage depots, truck terminals.

Industries Use (ID) – Minimum RoW of the road shall be 12 m or as per prescribed guidelines of Industries & Commerce Department.		
17.	**ID1**	All type of Light., Service Industries, Small Factories, Warehouses, Newspaper Printing Press, Concrete Batching Plant, stone cutting and polishing; Poultry Farm, Dairy, Assembly Plant, Filling station
18.	**ID2**	All Industries except Hazardous Industries, Junk Yard, Textile Units, Ice Factory; Quarrying of Stone, Quarrying of Gravel, Quarrying of Clay, Dumping of Solid Waste, Non obnoxious and Non-Hazardous Industry
19.	**ID3**	Slaughterhouse, Meat Processing Units, Leather Processing Units, Cold Storage, flour mills
20.	**ID4**	Fuel Storage, Storage of inflammable materials, Thermal Power Plant, Power Plant, Gas Plant, Storage of Hazardous Materials, Hazardous Industries, Chemical Industries. Obnoxious and Hazardous Uses, Dying House
Conservation Use (CG)		
21.	**CG**	It is an environmentally conserved land-use where no building construction is permitted like Forest, Vegetation, Dense Plantation, Rivers, Water Bodies & green buffer.

5.1.3 Permissible & Non-Permissible Uses as per Use-Zones as per the Existing Road Width

Table No.5 - 2 Permissible & Non-permissible Uses as per-Zone

P- Permissible, NP- Not permissible, CA - Uses Permissible on approval by BPIA Authority.
(Only following list of Activities are Permissible & Non-Permissible for the local/notified Area.)

S. No	Activities	ROW (m)	B/L (m)	Use-Zones						F.S.B (m)
				R Zone	M Zone	C Zone	RC Zone	T Zone	PSP Zone	
1.	R1 (i)	3.0	3.0	P	P	P	NP	P	P	1.5
2.	R1 (ii)	4.5	4.0	P	P	P	NP	P	P	1.8
3.	R1 (iii)	6.0	5.5	P	P	P	NP	P	P	2.5
4.	R2	9.0	8.0	P	P	P	NP	P	P	3.5
5.	R3	12.0	11	P	P	P	NP	NP	NP	5.0
6.	C1	9.0	8	P	P	P	NP	P	P	3.5
7.	C2	12.0	11	P	P	P	NP	P	NP	5.0
8.	C3	15.0	13.5	NP	P	P	NP	NP	NP	6.0
9.	C4	18.0	16	NP	P	P	NP	NP	NP	7.0
10.	C5	24.0	19.0	NP	NP	P	NP	NP	NP	7.0
11.	PSP1	9.0	8	P	P	P	NP	P	P	7.0

12.	PSP2	12.0	11	P	P	P	NP	P	P	7.0
13.	PSP3	15.0	18.5	P	P	P	NP	P	P	7.0
14.	PSP4	24.0	21.5	NP	NP	NP	NP	NP	P	7.0
15.	RC	All	As applicable road category	P	P	P	P	P	P	As applicable road category
16.		30.0	22.0	**The activities will be permissible as above and guided by minimum road width requirement.**						7.0
17.		36.0	25.0							7.0
18.		50.0	32.0							7.0
19.		60.0	37.0							7.0

Note: Whichever is more shall be applicable w.r.t Building lines/ROWs

P	Permitted	**NP**	Not Permitted
B/L	Building line (From centre of abutting road)	**FSB**	Front Set Back
RoW	Right of Way		

Retail Shops:

- In R zone, Commercial and professional and other office activities shall be permissible with maximum coverage Up to 1/3rd of permitted FAR.
- The below mentioned shall be categorized as Retail Shops.

Bakery/Confectioneries items, Grocery/General Store, Daily Products, Stationary/Books/Gifts/Book binding, Cyber Café/Phone booth, L.P.G. booking office/L.P.G. showroom excluding cylinder, Pan shop, Laundry/Dry-cleaning/Ironing shop, Sweet Shop/Tea Shop excluding seating provisions, Chemists/Medicine shop, Optical shop, Home Appliances/Electronic Repair shop, Photo Studio, Cable/DTH office, Cycle Repair shop, Under Public Distribution System shops for Ration & Kerosine Distribution Shops, Vegetables/Fruits/Flower shops, Photocopy/Fax/STD-PCO, Haircutting/Beauty Parlour, Tailor shop/Boutique.

Notes:

I. No development shall be permitted in area designated for water body, pond and *Talav* excluding Riverfront Development. Setbacks to be maintained from a designated water body shall be as per Regulation for Conservation Zone (CG) of these regulations.

II. The land designated for public purposes; the uses shall be permissible as per the requirements of concerned department.

III. For all Zones,

- If the line of a Zone divides a Building unit, the maximum permissible F.A.R. available on either part of such Building-unit shall be as per the respective Zones.
- Such a Building-unit may be developed separately as per the regulations of the Respective Zones or as a contiguous development utilizing the combined maximum permissible F.A.R. in the part of the building unit which lies in the Zone with higher F.A.R.

IV. Public Utilities & Facilities shall be permitted in any Zone.

V. In the local areas where the mixed land use zones are not defined in the landuse plan of the master plan, the concerned authority shall unequivocally notify the roads for mixed landuse along with the extant vis-à-vis the mixed landuse zone in the table 5-2.

VI. For buildings above 21 m height shall have front setback of 1/3rd of the height of building or Building Line of the road whichever is more.

5.1.4 Circumstances Under Which Existing Non-Conforming Uses Will Be Allowed to Continue.

Existing non-conforming uses may continue in the following circumstances,

a) Any lawful use of land or building premises existing before coming in to force of these Regulations may be allowed to continue, if it does not conform to the use provisions of these Regulations provided that such non-conforming use is not extended or enlarged.

b) In case a building accommodating any non-conforming use, collapses or is pulled down or is dismantled, any new building on such site shall conform to these Regulations and to the land-use regulations prescribed in these Regulations.

c) In case of alteration work in a building, the permission shall be given only after giving setbacks and building line for proposed roads as per these regulations.

5.1.5 Development on Kabrastan, burial ground etc.

The land occupied by the graveyards, Kabrastan, burial grounds, crematoria and allied actions in the Local Area shall be kept permanently open. BPIA may permit structures to be built for specific purpose as ancillary use.

5.2 Development Control Regulations

5.2.1 Minimum Space/Plot Area requirements, Maximum Ground Coverage, Setbacks/Setbacks, Permissible Floor Area Ratio (FAR) & Maximum Height.

5.2.1.1 The regulations for Residential Use in terms of Plot area, Ground Coverage, FAR & Setbacks shall be as given below:

Table No.5 - 3

A. Minimum Setbacks/Setbacks, Maximum Ground Coverage & No. of Storeys as per Plot area Range for R1, R2 categories of Residential Use.

S. No	Area (In Sq m)	Max. Ground Coverage	No. of Storeys	Type of Const.	Set Back Limits (Minimum) in metres			
					Front	Rear	Side	Side
1.	Up to 75	75%	G+2	Row	Shall be as per table no. 5 - 2	0	0	0
2.	Above 75 - 125	75%	G+2	Row		1.5	0	0
3.	Above 125 - 275	65%	G+2	Row		2.0	0	0
4.	Above 275 - 350	55%	G+2	Semi-detached		2.0	2.0	0
5.	Above 350 - 450	50%	G+2	Semi-detached		2.0	2.0	0

6.	Above 450 - 600	45%	G+2	Detached		3.0	3.0	2.0
7.	Above 600 - 1000	40%	G+2	Detached		3.0	3.0	2.0
8.	Above 1000	35%	G+2	Detached		3.0	3.0	2.0

Note:

I. No side setbacks shall be required in plots or irregular proportions/ dimensions up to the width of 10M, minimum rear set back of 1M shall be permitted in cases where depth of such irregular plots is up to 12M. However, there shall be no change in permissible ground coverage, No. of storeys and height. of the building as given in the table above.

II. The Maximum height. of a residential house shall not be more than 12m. Height. of each storey in a residential house shall not be less than 3M, Staircase mumty height. up to 2.5m shall be in addition to G+2 storeys permissible.

III. Total habitable floor area shall not be in any case more than three times the allowable ground coverage.

IV. To cater to this parking requirement in individual plotted residential houses, Stilt Floor shall be allowed within the building envelope and shall be exclusively used for parking for roads 6 m and above.

V. Any area within building envelope provided for parking on ground shall not be counted in covered floor area and the same area shall be allowed for habitable purpose on 3rd floor.

VI. In case stilt parking is provided within building envelope in combination with ground floor, the area under parking shall be allowed for habitation on 3rd floor. Height. of Stilt floor in this case shall not be more than 3m.

VII. Basements shall not be allowed in row housing, but single basement shall be allowed in detached and semi-detached housing subject to fulfilment of basement norms as per national Building Code.

VIII. Basements in individual plotted housing shall be counted towards FAR and ground coverage.

IX. Single basement shall be allowed within the building envelope ensuring structural safety with maximum height. of 3.0 m from finished floor to soffit of beam.

X. Porches up to an area of 17 Sqm shall be allowed in side setbacks only and no construction over such porches shall be allowed.

XI. Areas under porch shall be calculated @ 50% for coverage.

XII. Stilt floor shall be allowed on roads not less than 6.0 m Width.

B. Regulations for R3 - Group Housing (Flatted Development)

S.No.	**Plot Area (Sq. m)**	**Max. Ground Coverage**	**Max. FAR and Dwelling Units per ha**	**Max. Height (m)**	**Min. Setbacks Rear & Both sides (Each Side)**	**Tower to Tower Distance**
1.	4000 - 8000	30%	175	Height to be regulate	1/3rd of height. of building or 7.5m or building line of the	Minimum 6M all around up to 40 m height. and minimum 9m all-round above 40m height.

				d by Fire and	abutting road whichever is more	
2.	Above 8000	30%	225	Emergency Equipment available	1/3rd of height. of building or 7.5 m or building line of the abutting road whichever is more	Minimum 6M all around up to 40 m height. and minimum 9 m all-round above 40m height.

Note:

I. The group housing scheme shall be subject to Reservation Policy for EWS/LIG Housing for Urban Poor as per J&K Housing, Affordable Housing, Slum Redevelopment and Rehabilitation and Township Policy-2020.

II. F.A. R/Density required for EWS shall not be counted in overall FAR of the Group Housing Scheme & shall be subject to the fulfilment of parking norms for EWS as well if provided within the group-housing scheme. Allotment under EWS scheme shall be made strictly as per the J&K Housing, Affordable Housing, Slum Redevelopment and Rehabilitation and Township Policy-2020.

III. Byelaws for affordable housing shall be as per J&K Housing, Affordable Housing, Slum Redevelopment and Rehabilitation and Township Policy-2020.

IV. Maximum Commercial/Public-Semi-public use in Group Housing/Flatted Development shall be 10% of the total site/scheme area.

V. Security room may be allowed at the entrance gate up to a maximum built up area of 30 Sq m (up to 3.5m height.) after maintaining the RoW of road and shall be counted as FAR.

VI. Minimum Floor height. from finished floor for any habitable space shall be 2.75m.

VII. Built up area (Unit Area) of apartment for calculation of ECS shall be excluding common service areas. Any service area within apartment shall be counted in built up area. Balconies and Verandas shall be counted @ 50% in FAR.

VIII. If there are any bends or curves on the approach road within the plot, a sufficient width shall be provided at the curve to enable the fire tenders to turn, the turning circle being at least of 9.0 m radius. Where entry to the plot is through a slip road the gate width shall not be less than 9.0 m for entry of the firefighting appliances.

IX. The internal access to the building within the plot and open spaces on its all sides shall not be less than 6 m width and the layout for the same shall be done in consultation with Chief Fire Officer, Fire Service and the same shall be reinforced to ensure safety of the fire equipment and capable of taking the weight. of Fire engine, weighing up to 45 tons. The said open space shall be kept free of obstructions and shall be motorable.

X. Main entrances to the premises shall be of 9.0 m width to allow easy access to the fire engine. and in no case, it shall measure less than 6 m. The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior access way within the plot free for movement of fire service vehicles. If archway is provided over the main entrance the height. of the archway shall not be at a height. less than 5m.

XI. The catalogue for sale of apartments shall be similar to the basic plan approved by the authority.

XII. No deviation in the plan shall be allowed once the apartments are sold in part or whole.

XIII. No common areas like corridors, stairs, lifts, lobbies shall be allowed to be sold to a particular person or a group of persons after the apartments are sold in part or whole.

XIV. No apartment holder shall be allowed to have extra rights on common spaces.

XV. Common spaces shall include all green spaces, children's parks, play grounds, sports facilities, areas which are of common use of the apartment owners forming part of the sanctioned plan under bye laws of the authority.

XVI. Any additional space not counted in the permissible floor space shall also be treated as common areas.

XVII. Designated parking spaces shall be allotted to apartment holders.

XVIII. Height Exemptions:

a. Roof tanks and their supports not exceeding 1.0 m. in height.,
b. Ventilating, air conditioning and lift rooms and similar service equipment,
c. Stair covered with Mumty not exceeding 3.00 m. in height.
d. Chimneys and parapet wall and architectural features not exceeding 1.50 m. in height. unless the aggregate area of such structures exceeds 1/3rd of the roof area of the building on which they are erected. All such appurtenant structures shall be camouflaged to achieve streamlined aesthetics.

C. Regulations for Housing Colonies (plotted)

a) A group or a group of persons or a co-operative society or firm intending to plot out an estate into more than 4 plots shall give notice in writing to the BPIA which will be accompanied by a layout plan of entire land showing the areas allotted for roads, open spaces, plot and public buildings, the specification of the roads, drains and other infrastructures.

b) Roads, Drains, water mains and electric lines required for the colony shall be constructed by the developer at his own cost and no plot shall be eligible for any services and utilities by the govt. and/or Municipal Corporation unless the colony is developed properly and approved by the BPIA, and no building plan shall be considered by the Municipality or prescribed authority in any plot of such a colony which has not received the prior approval of the BPIA. Developer in this case will mean the person, co- operative or the firm intending to plot out the land into more than 4 plots.

c) Land use of the layout plan approved by the BPIA shall not be changed unless with the prior consent of the BPIA.

d) Open spaces allocated for parks, playfields, utility sites / buildings in a colony shall be deemed to have been sold along with the plots as amenity of the colony by the developer to the plot holders of the colony. The development of such open spaces shall be the responsibility of the Developer.

e) No permission shall be accorded for construction of a building in any notified area which shall cause nuisance by way of odour, smoke, noise or disturbance to inhabitants of the locality or be injurious to health of the residents of the buildings or to the inhabitants in the surrounding areas.

f) Norms for Colonies up to 1.0 Hectare:

	Land Distribution	
1.	**Min. Approach Road**	9.0 m.
2.	**Internal Roads**	

Width of Means of Access (m)	**Length of Means of Access (m) Max**
6.0	75
7.5	150

3.	**Area under Roads**	Min. 12%

4.	**Area under Green**	Min. 10%
5.	**Residential Area**	Max. 70%
6.	**Commercial / PSP Area**	Max. 5%

g) Norms for Colonies above 1 Hectare up to 4 Hectare:

	Land Distribution	
7.	**Min. Approach Road**	12.0 m.
8.	**Internal Roads**	

Width of Means of Access (m)	**Length of Means of Access (**m) ***Max***
6.0	75
7.5	150
9.0	250

9.	**Area under Roads**	Min. 12%
10.	**Area under Green**	Min. 10%
11.	**Residential Area**	Max. 70%
12.	**Commercial / PSP Area**	Max. 10%

5.2.1.2 The regulations for Commercial & Public-Semi Public building use in terms of Space/Plot area, Ground Coverage, FAR, Height. & Setbacks/setbacks shall be as under:

Table No.5 - 4

- **Maximum Building Height. & Minimum Setbacks**

Note: WEIM = Whichever is more, NA = Not Allowed / Applicable, B. L= Building Line

Commercial

S. No	**Building Use**	**Plot Area (Sq. m)**	**Ground Coverage (%)**	**FAR**	**Max. Height. (m)**	**Min. Setbacks (m)**			
						Front	**Rear**	**Side**	**Side**
1.	**Single Shop**	Up to 100	70	210	12 (G+2)	Shall be as per Table no. 5 - 2	N	N	N
		Note: Shopping permissible on G+1 only. Basement shall not be allowed.							
2.	**Shopping Cluster**	Above 100 - 300	60	180	14	Shall be as per Table no. 5 - 2	3.0	3.0	N
		Note: Shopping permissible on G+1 only. Basement shall not be allowed							
		Above 300 - 750	50	180	14	Shall be as per Table no. 5 - 2	3.0	3.0	N
		Note: Single Basement within the building envelope shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed for parking only.							

3.	**Commercial Complex**	Above 750 - 2000	45	180	20	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. (W.E.I.M)	3.0	3.0
		Note: Single Basement within the building envelope shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed for parking only.							
		Above 2000 - 4000	40	180	25	Shall be as per Table no. 5 - 2	6.0 or 1/3rd of Building Ht. (W.E.I.M)	6.0 or 1/3rd of Building Ht. (W.E.I.M)	6.0 or 1/3rd of Building Ht. (W.E.I.M)
		Note: Double basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed.							
		Above 4000	35	180	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	6.0 or 1/3rd of Building Ht. (W.E.I.M)	6.0 or 1/3rd of Building Ht. (W.E.I.M)	6.0 or 1/3rd of Building Ht. (W.E.I.M)
		Note: Three basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed.							
4.	**Cinemas/Cineplex**	Min. 4000	50	150	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	1/3rd of Building Ht.	1/3rd of Building Ht.	1/3rd of Building Ht.
		Note: Three basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed. Canteen/ food court upto15% of FAR shall be allowed.							
5.	**Hotel**	1000-2500	40	180	Height to be regulated by Fire	Shall be as per Table no. 5 - 2	1/3rd of height. of building or 6 m	1/3rd of height. of building or 6 m	1/3rd of height. of building or 6 m

					and Emergency Equipment available		(W.E.I.M)	(W.E.I.M)	(W.E.I.M)
		Note: 5% of permissible FAR for party hall and 3% permissible FAR for Conference hall shall be allowed. For Conference halls/party halls/bars/restaurants etc. (Excluding entrance hotel lobby/atrium) min parking @ 1.5 ECS for 10 Sqm shall be provided. Double basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed.							
		Above 2500	30	200	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)
		Note: 5% of permissible FAR for party hall and 3% permissible FAR for Conference hall shall be allowed. For plots more than 12K facilities like banquet hall shall be allowed with parking provision as per banquet norms. For Conference halls/party halls/bars/restaurants etc. (Excluding entrance hotel lobby/atrium) min parking @ 1.5 ECS for 10 Sqm shall be provided. Three basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed.							
6.	**Mall cum Multiplex**	Min. 5000	40	200	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	1/3rd of height. of building or 3M (W.E.I.M)	1/3rd of height. of building or 3M (W.E.I.M)	1/3rd of height. of building or 3M (W.E.I.M)
		Note: For halls/party halls min parking @ 1.5 ECS for 10 Sqm shall be provided.							

		Three level basements if used for parking shall be allowed as specified in the basement norms. Stilt floors within the building envelope shall be allowed.							
7.	**Janjghar/ Community Center/ Banquet Hall**	Min. 6000	30	60	12	Shall be as per Table no. 5 - 2	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)
		Note: Double basements shall be allowed. Basements should be allowed for parking only. In case of sloping roof, no activity shall be allowed in the attic space. Security room may be allowed at the entrance gate up to a maximum built up area of 15 Sqm (up to 3.5M height.) after maintaining the RoW of road and shall be included in FAR. Parking shall not be allowed in proposed RoW of roads. Bore wells and power-driven water pumps shall not be allowed in construction sites or in any building without license and proper permission from the competent authorities.							
8.	**Ware Housing, Storage Vegetables & Fruit Mandis**	Min. 25000	25	100	15	Shall be as per Table no. 5 - 2	9.0	9.0	9.0
9.	**Multi-Level Parking**	Min. 2000	66	-	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: Minimum number of car parking space shall be 50. Terrace/Roof Top Parking shall be allowed with proper protection to the satisfaction of concerned authority. In order to compensate the cost of Multi-Level Parking, a maximum 25% of Gross permissible Floor Area may be utilized as Commercial/Office space. Maximum FAR proposed for commercial spaces shall be 100 (excluding parking areas). In addition to requisite parking space required for Commercial developed within the Multi-Level Parking complex (@ 3 ECS / 100Sq. m), Three times additional space for parking components shall be provided. Three Basements shall be allowed for Parking as specified in the basement norms. Maximum Height. shall be restricted to permissible height. of the land- use in which the plot falls. Shops/Offices/Commercial spaces shall be allowed on ground and first floor, only for rehabilitation of project affected persons in Government comprehensive schemes. In case of government comprehensive schemes, development controls including height. shall be as per approved scheme.							
INDUSTRIAL USE									

10.	**Flatted Group Industry and Service Centre**	Min. 2000	30	120	20	Shall be as per Table no. 5 - 2	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)	1/3rd of height. of building or 6M (W.E.I.M)
		Note: Basement up to the building envelop line to the maximum extent of 50% plot area shall be allowed and if used for parking and services should not be counted in FAR.							
11.	**LigHt. and Service Industry**	100 up to 500	60	120	12	Shall be as per Table no. 5 - 2	3.0	3.0	N
		500 up to 4000	55	125	12	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. (W.E.I.M)	3.0 or 1/3rd of Building Ht. (W.E.I.M)	3.0 or 1/3rd of Building Ht. (W.E.I.M)
		4000 up to 12000	50	115	12	Shall be as per Table no. 5 - 2	6.0	6.0	6.0
		Above 12000	45	100	12	Shall be as per Table no. 5 - 2	6.0	6.0	6.0
		Note: Maximum floors allowed shall be basement, ground floor and 1st floors; basement should be below ground floor and to the maximum extent of ground coverage shall be counted in FAR. In case the basement is not constructed, the permissible FAR can be achieved on the second floor. In case of truss, height. of building should be adjusted/ relaxed.							
12.	**Extensive Industry**	400 up to 4000	50	100	9	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. (W.E.I.M)	3.0 or 1/3rd of Building Ht. (W.E.I.M)	3.0 or 1/3rd of Building Ht. (W.E.I.M)
		4000 up to 12000	45	90	9	Shall be as per Table no. 5 - 2	6.0	6.0	6.0
		12000 up to 28000	40	80	9	Shall be as per Table no. 5 - 2	7.0	7.0	7.0
		Above 28000	30	60	9	Shall be as per Table no. 5 - 2	8.0	8.0	8.0
		Note: Single Storey building with basement is allowed. Basement shall be below the ground level and the maximum extent of the ground coverage and shall not be counted in FAR. In case of truss, height. of building should be adjusted/ relaxed. Height.							

		relaxation can be considered by the content authority for specialized industries requiring more height.							
PUBLIC AND SEMI PUBLIC/ INSTITUTIONAL USE									
13.	**Offices: General/ Government Offices/ Integrated Office Complex**	-	30	210	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: The integrated office complex shall include Central Government Office, Local Government Office, Public Undertaking Offices and Courts. Maximum up to three basements within the building envelope. Stilt floors within the building envelope shall be allowed. Minimum plot area for offices shall be 500 Sqm. These norms shall not apply on basic/ important infrastructure/ utilities to be created by government and shall be as per the government policies.							
Educational									
14.	**Pre-Nursery/ Creches**	As per Residential use Norms. Note: Pre-Primary Schools/ Nursery Schools/ Montessori Schools/Creche, Play Schools, may be permissible in residential use.							
15.	**Nursery School**	Min. 750	33.33	100	Ht. as per land use but not exceeding 15m	Shall be as per Table no. 5 - 2	3.0 or B.L. (W.E.I.M)	3.0 or B.L. (W.E.I.M)	3.0 or B.L. (W.E.I.M)
		Note: Stilt floors within the building envelope shall be allowed. Basements shall not be allowed.							
16.	**Primary School**	Min. 2000	33	120	15	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
17.	**Middle School**	Min. 4000	33	115	15	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)

		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
18.	**High/ Higher Secondary School**	Min. 7500	35	140	18	Shall be as per Table no. 5 - 2	4.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	4.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	4.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
19.	**College**	Min. 30000	25	100	18	Shall be as per Table no. 5 - 2	5.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	5.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	5.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
20.	**Educational and Research Centre/Universities**	Min. 80000							
		Academic including Administration (45% of the total land area)							
		-	30	120	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Residential (25% of the total land area							
		-	Regulations of Group Housing shall be followed subject to provision of density of 400 PPHa gross and land shall be reserved for residential facilities @ 9.2 Sq. m. per person						
		Sports and Cultural Activities (15% of the total land area)							
		-	10	15	-	Shall be as per Table no. 5 - 2	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	10.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Parks and Landscape Areas (15%of the total land area)							
		-	Suitable landscape plan to be prepared for this area						
		Note Stilt floors within the building envelope shall be allowed. Double basement within the building envelope shall be allowed for parking as specified in the basement norms.							
Health									

21.	**Hospital**	Min. 6000	40	250 when RoW less than 25m 300 when RoW more than 25m	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Note: Maximum 10% Ground coverage shall be allowed for providing atrium and shall be free from FAR. In case, additional ground coverage for atrium is utilized 25% of the utilized ground coverage shall be counted toward FAR. Common areas such as waiting halls, reception and fire stair cases shall be allowed free from FAR. Service floor of height. 1.8m shall not be counted in FAR. The setbacks / regulations are subject to fire safety norms. Multi-Level Parking shall be Permissible to the extent of building Envelope lines, free from FAR and ground coverage to facilitate ample parking in spaces, subject to structural safety.								
22.	**Health Centre/ Nursing Home**	Min. 1000	30	100	26	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)	3.0 or 1/3rd of Building Ht. or B.L. (W.E.I.M)
		Notes: Multilevel basements within the building envelope shall be allowed as specified in the basement norms. Basements/Stilt floors if used for parking shall not be counted in FAR. Max. Plot area for all Hospital/Tertiary Health Care Centre would be worked out @ 80 sq.m. of gross floor area per bed. However, for other health facilities like Maternity/Nursing homes, family Welfare and other centres, the plot area would be worked out @ 60 sq.m. of gross floor area per bed. Maximum up to 300 sq. m. of floor area shall be allowed to be used for community space / religious shrine / crèche / chemist shop/ bank counter on Hospital sites and also Medical College/ Nursing and Paramedic institutes sites. Other Controls: In case of super specialty medical facilities/hospitals duly certified as such by the BPIA , the gross area shall be worked out @ up to 125 sq. m. per bed. In case of existing premises/sites, the enhanced FAR shall be permitted, subject to payment of charges as may be prescribed by the Authority / land owning agency and other clearances.								

		Basement after utilization for Parking; Services Requirements such as air conditioning plant and equipment, water storage, boiler, electric sub-station, HT. & LT panel rooms, transformer compartment, control room, pump house, generator room; staff locker room, staff changing room, staff dining facilities without kitchen facility, Central sterile supply dept., back end office; Other Mechanical Services; Installation of Electrical and firefighting equipment's; and other services like kitchen, laundry and radiology lab and other essential services required for the maintenance/functioning of the building may be used for healthcare facilities with prior approval of the concerned agencies. Other controls related to basements etc. are given in end of this chapter. The bed count of a Health Facility may be allowed as per permissible FAR. Environment clearances shall be made mandatory considering that bio-wastes are generated. Environment clearances are mandatory as per the prevailing regulations related to the environment. Zero discharge for sewerage shall be enforced at the cost of the promoters and post treatment water can be used by premises for its needs of horticulture, flushing, coolant tower, washing or disposal to other construction sites. These issues concerned the local bodies and can be dealt accordingly as per existing regulations as the time of sanctioning the plan. The additional power requirements shall be met by power supply from grid and till such time by means of suitable captive generation.								
23.	**Radio Diagnostic Centre / Microbiological / Pathological Laboratories**	Min. 500	30	100	15 without stilt 18 with stilt	Shall be as per Table no. 5 - 2	3.0 or B.L. (W.E.I.M)	3.0 or B.L. (W.E.I.M)	3.0 or B.L. (W.E.I.M)
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
Facilities and Amenities									
24.	**Religious Premises**	Min. 750	35	70	12 (Excluding Minars Shikharas or Domes)	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht..	3.0 or 1/3rd of Building Ht..	3.0 or 1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
25.	**Police Post**	Min. 250	35	100	12	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht..	3.0 or 1/3rd of Building Ht.

		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
26.	**Police Station**	Min. 1000	30	150	26	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms. 25 % of the plot area may be used for housing the staff and the regulations of group housing shall be applicable to the area meant for housing.							
27.	**Post & Telegraph Office/Bank**	Min. 250	25	100	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Multi-level basement within the building envelope shall be allowed for parking as specified in the basement norms.							
28.	**General (Public & Semi-Public Premises)**	Min. 500	25	100	Height to be regulated by Fire and Emergency Equipment available	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Double basement within the building envelope shall be allowed for parking as specified in the basement norms. Other controls: Up to 25% of maximum FAR can be utilized for residential use of essential staff in fire station. Up to 15% of maximum FAR can be utilized for residential use/hostel for essential staff and student accommodation, in Fire Training Institute/College. Other controls related to basements etc. are as per regulations.							

29.	**Fire Station**	Min. 2000	30	120	26	Shall be as per Table no. 5 - 2	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.	3.0 or 1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Double basement within the building envelope shall be allowed for parking as specified in the basement norms. Other controls: Up to 25% of maximum FAR can be utilized for residential use of essential staff in fire station. Up to 15% of maximum FAR can be utilized for residential use/hostel for essential staff and student accommodation, in Fire Training Institute/College. Other controls related to basements etc. are as per regulations.							
Non- Residential Premises									
30.	**Hostel**	Min. 750	30	120	15	Shall be as per Table no. 5 - 2	1/3rd of Building Ht.	1/3rd of Building Ht.	1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
31.	**Guest House, Boarding House or Lodging House**	Min. 500	30	120	18	Shall be as per Table no. 5 - 2	1/3rd of Building Ht.	1/3rd of Building Ht.	1/3rd of Building Ht.
		Note: Stilt floors within the building envelope shall be allowed. Single basement within the building envelope shall be allowed for parking as specified in the basement norms.							
Other Uses									
Petrol Pumps: The general regulations for Petrol Pumps shall be as per guidelines issued by **Ministry of Road, Transport & Highways**. • New petrol pump shall not be located on any road having R/W less than 15 m									
32.	**Filling Station**	The frontage & depth of the plot shall be as per guidelines issued by Ministry of Road, Transport & Highways.	10	10	6	Shall be as per Table no. 5 - 2	N	N	N
	Filling Cum Service Station		20	20	6	Shall be as per Table no. 5 - 2	N	N	N
	Compressed Natural Gas (CNG) Mother Station		20	20	4.5	Shall be as per Table no. 5 - 2	N	N	N
		Other Regulations:							

		Shall be accepted to explosive /Fire Dept. Ground Coverage will exclude canopy area. Mezzanine if provided will be counted in FAR.

Note:

- The height. of stilt should be maximum 3.0 m below soffit of beam.
- In case stilt parking is provided within commercial or PSP building envelope in combination with ground floor, Height. of Stilt floor in this case shall not be more than 3.0 m. below beam soffit.

5.2.1.3 Relaxation in Floor Area Ratio (FAR)

In case of Building-units affected by road widening or construction of new road, the owner may claim FAR from the BPIA as a compensation for the surrendered land. In case of FAR, the BPIA shall permit the FAR of any such land / plot or Building-unit on the basis of the original boundary of the Building Unit. This is subject to conformity with all other requirements mentioned in these Regulations as per the new boundary. Before securing Development Permission on any such Building-units, owner shall have to surrender the affected land which shall be calculated as follows; Compensation as TDR = Surrendered Land (sqm) x Base F.A.R. x 2

5.2.1.4 Areas not counted towards computation of FAR

Following areas shall not be counted towards computation of FAR:

1. The area under lift wells, service ducts, machine room for lifts, water tanks, escalator, lift lobby, fire escapes, ramps and service ducts.
2. Parking areas, parking floors, mechanized parking areas, porch, service floors, podiums.
3. Basement if used for parking
4. Corridors, arcades, lobbies, mumty, staircases, entrance lobbies or foyers, atrium which is not used for commercial activity, pump room and two watchmen hut each not exceeding 6 sq. ms.
5. Provided that in commercial use premises, the area of foyer(s) or entrance lobby(s)located on the ground floor which exceeds 20% of permissible ground coverage shall be counted in the FAR.

Notes:

1. In cases where building proposal approved prior to these Regulations are proposed to avail the balance development rights not exceeding the Total permissible FAR as per these regulations shall be permitted by utilizing the TDR and by payment of Premium.
2. In case of land parcels affected by the road widening or land acquisition for public purpose uses, the owner shall have right. to use TDR provided in form of compensation as an additional F.A.R. of the surrendered land, on the same land/building parcel or shall be allowed to sell the F.A.R. as per TDR policy.
3. In case if TDR is not available through private owner then plot owner will have an option to avail additional FAR.
4. Road Side Setback in a Land-Parcel shall be regulated by the Road width it abuts.
5. For Redevelopment parcels, sides & Rear Setbacks shall be minimum of 6m or 1/3rd of the abutting building height. whichever is more.
6. For Land-Parcel with two or more abutting roads, the Road-side Setback/setback as per the building line shall be applicable on all such abutting sides. This Regulation shall be applicable for all Land-Parcels or as mentioned in Master Plans/Zonal Development Plans.

5.2.1.5 Permissible Uses in Setbacks

1. Residential Zone
    a. Ancillary uses such as Car Porch shall be permitted as a part of the permissible FAR as already given of the Building Unit, in side or rear Setback but in no case in Road-side Setbacks; with maximum permissible ground coverage of 17 sq. m and maximum permissible height. of 3.0 m.
    b. Open, cantilever staircase with maximum width of 1.00 m and landing space of maximum 2.00 Sq. m at floor level shall be permitted in side or rear Setbacks except on road side Setback.
    c. Doors, windows or projections shall not be permitted along the common wall of the adjoining property.
    d. No rainwater from the roof shall be drained in the adjoining property.
    e. Partition wall shall be allowed along the Building Unit boundary on common boundary of semi-detached building and on Setback between two structures up to a maximum height. of 1.5ms.
2. For Residential Zone Building Uses: Underground water tank, percolation well, bore well and pump room with a maximum size of 2ms X 2ms and with a maximum depth of 2ms.
3. Vehicular Ramp connecting ground level with basement level shall be permitted in side and/ or rear Setback only.
4. For a building-unit using Setback for providing electrical infrastructure such as substation, underground water tanks shall be allowed on only one Setback side except Road-side Setback. The other Setbacks shall be kept clear and accessible at ground level.
5. Electrical Infrastructure: Electrical Sub-station, Transformer room, Box-type transformer, Section Feeder Pillar, Auxiliary Power Back-up System and m room according to the norms of the Competent Electric Company shall be permitted in Setback except Road-side Setback of the Building-unit. The area of such construction shall not be counted towards FAR.
6. Fire Escape Open Staircase for Building with height. more than 30ms: Fire Escape Staircase required shall be permitted in Setback except road-side Setback and subject to free movement of fire tender.
7. Pedestrian Ramp shall be permissible in Setback at Ground Floor Level only.
8. Parking shall be permitted in Setbacks except in Approach Road.
9. In any Setback open space, weather sheds, sun breakers horizontal or vertical projections shall be permitted up to 0.60 m. These projections may also be part of the facade articulation at various levels, but shall in no cases be at the floor level such that they become a part of the habitable space. Such projections shall be allowed above a minimum height of 2.4ms from the ground level.

5.2.1.6 Restricted Use in Setbacks

1. The required Setback open spaces except permissible uses as per Regulation 5.2.1.5 shall be kept permanently open to sky.
2. This space shall not be used for stocking materials or loose articles for the purpose of trade or otherwise, putting up fixed or movable platforms.
3. Parking shall not be allowed in the Setback provided as approach road.

4. Vehicular ramp leading to parking in floors above ground level shall not be permitted in the Setback.
5. Pedestrian ramps connecting ground floor with upper floors shall not be permitted in the Setbacks.

5.2.1.7 General Basement Requirements

In a Building-unit, the Basement shall be permitted on the following conditions:

A. Setbacks

1. Basement shall be permitted on plot abutting Minimum Road width 12 m or above and coverage up to Building Envelop only.
2. Basement shall be permitted on plot having minimum plot width 18 m or more.
3. Basement shall be permitted in the building envelop only.

B. Height. of Basement

1. Maximum Height of the Basement below soffit of beam shall be 3.0m.
2. Height of first basement above ground level will be maximum 1.5 m below the roof slab. Where stilt or podium parking is permitted, the first basement roof will be levelled with the ground.

C. Permissible Uses in Basement

1. Permitted uses in Basement are parking, safe deposit vault, A.C. Plant, storage other than inflammable material, Sewage Treatment Plant.
2. No habitable use shall be permitted in the basement.
3. Permitted uses in Basement of a Hospital Building: Radiation-producing device, Radiation Therapy Room, MRI or X-Ray room. This shall be permissible only if the basement layout in not shown as parking for approval.
4. For basements exclusively for parking, any other permissible use is permitted only in basement level-1 up to a maximum area of 10% of the total built-up- area of the basement floor. This non-parking area shall be calculated towards the computation of FAR.

5.2.2 Parking

5.2.2.1 Private Parking (On the plot)

5.2.2.1.1 General Requirements for Parking

1. Parking requirement for a Mixed-Use development shall be calculated on pro rata basis of the FAR consumed specific to the different uses.
2. Parking is permitted at any floor level above ground and at more levels or basement as per required parking, with provision of vehicular ramp/mechanized means/car lifts.
3. Parking area includes parking space, driveway and aisles but excludes approach road, vehicular lift and vehicular ramps.
4. Parking layouts with minimum size requirements for parking space, driveways and access lanes shall be provided as mentioned ahead.
5. Parking shall be permitted in side or rear Setbacks except in Approach Road as per Regulation 5.2.1.5.
6. Parking area should be retained as effective parking space and shall be maintained with light and ventilation system if provided in an enclosed area.
7. In cases where misuse of parking space is noticed, the use of the entire building shall be

discontinued by the BPIA. Building use shall be permitted only after the required parking spaces are provided. High penalty shall be levied considering the period of misuse of the parking space and the benefit derived out of misuse as decided by the BPIA from time to time.

8. If parking is provided on a terrace with vehicular elevator, vehicular ramp is not necessary if parking space is provided with provision of floor sprinklers.
9. Parking shall not be permitted within an Atrium.
10. At the time of approval an agreement /affidavit regarding the areas in basement/stilts/open shown for parking shall be furnished by the applicant to the concerned authority mentioning that aforesaid part (parking) shall not be sold to anybody and it shall remain for parking only, this area shall remain in joint possession of the occupants of the building. In case of violation concerned authority will be authorized to demolish any such construction with or without prior notice.

5.2.2.1.2 General Space Requirement for Parking

1. Location
   The parking spaces can be provided in basement or on a floor supported by stilts or on upper floors/podium and uncovered spaces in a plot. However, no parking spaces will be permitted in the Setback open spaces as required to be provided as per Regulation No. 5.2.4.7 & 5.2.4.8.
2. The deck parking inclusive of car lifts & passages shall be counted in FAR.
3. Area of Parking Space: The area of parking spaces shall be provided as given below:

Table No. 5 - 5 Parking requirements

S. No.	use	Parking requirement
1	**Residential**	
	Residential (R1) for Plots more than 50 sq.m.	Minimum Parking requirement for individual plotted housing shall be calculated @ 0.25 ECS for every 40 Sqm of built-up area.
	Group Housing	• Up to 50 Sqm / EWS 0.25 ECS • Above 50 Sqm to less than 100 Sqm 0.5 ECS • From 100 Sqm up to 120 Sqm 1.0 ECS • Above 120 Sqm up to 180 Sqm 1.5 ECS • Above 180 Sqm 2.0 ECS
2	**Commercial**	
	Single Shop	• 2.0 ECS/100 Sq. m F.A. (if F.A. exceeds 50 sq.m)
	Shopping Cluster	• 2.0 ECS/100 Sq. m F.A.
	Commercial Complex	• 2.0 ECS/100 Sq. m F.A. up to plot area 4000 Sq. m • 2.5 ECS/100 Sq. m F.A. above 4000 Sq. m plot area

	Cinema/Cineplex	• 1 ECS for 3 seats of Cinema • 2 ECS/100 Sq. m F.A. for other uses incidental to Cinema/Cineplex
	Hotel	• 1 ECS for 3 Guest Rooms • 2 ECS/100 Sq. m F.A. for other uses incidental to Hotel • For Conference halls/Party Halls/Bars/Restaurant (excluding entrance Hotel lobby/Atrium) min. parking @ 1.5ECS/10 Sq. m shall be provided.
	Mall/Multiplexes	• 1 ECS for 3 seats of Cinema • 2 ECS/100 Sq. m for additional area under uses incidental to Malls / Multiplexes • For Party Halls min. parking @1.5ECS for 10 Sq. m shall be provided.
	Banquet Hall/Community Centre/Janjghar	For plots min. 6000 Sq. m up to less than 10000 Sq. m • Min. 150 ECS up to 1000 Sq. m of built-up area. • For more than 1000 Sq. m an additional parking @ 1.5 ECS/10 Sq. m shall be provided. For plots above 10000 Sq. m • In addition to above category, an additional parking @ 6ECS/500 Sq. m plot area shall be provided.
	Restaurant/Fast Food Bar	1.0 ECS for every 3 seats
3.	**Public-Semi-public/Institutional Use**	
	Offices: General/ Government Offices/ Integrated Office Complex	• 2.0 ECS/100 Sq. m F.A.
4.	**Education**	
	Primary / Middle/ Secondary & Hr. Sec. schools	• For the Administrative & public Area of the School 1.5 ECS per 100 Sq. m built-up area or part thereof. • For Every3 Class Room - 1 LCV
	College/Research Centre	• For the Administrative & public Area of the School 1.5 ECS per 100 Sq. m built-up area or part thereof. • For Every 3 Class Room - 1 LCV & 1 ECS
	Coaching Classes	For every 20 Student - 1 ECS
5.	Hospitals / Health Centre / Nursing Home / Radio Diagnostic Centre / Microbiological / pathological	• 2.0 ECS/100 Sq. m F.A.
6.	Religious Premises	• 1 ECS/100 Sq. m F.A.

	Police Post/ Police Station/ Fire station/ Post & Telegram Office/ Bank/ General Public-Semi-public premises	• 2.0 ECS/100 Sq. m F.A.
	Hostel	• 1.5 ECS/100 Sq. m F.A.
	Guest House, Boarding House & Lodging House	• 2.0 ECS/100 Sq. m F.A.

ECS value shall be taken as:

S. No	On Ground	Basement	Stilts	Mechanized	Rotating
1	18.0 Sq. m/ECS	28.0 Sq. m/ECS	23.0 Sq. m/ECS	16.0 Sq. m	5.0 Sq. m

- **For Four-wheeler**

1. Basement parking shall be permitted on plot abutting Minimum Road width 12 m or above.
2. Basement parking shall be permitted on plot having minimum plot width 18m or more & minimum plot depth 20 m or more.
3. Side & Rear Setbacks for Basement parking shall be as per Regulation 5.2.4.1, 5.2.4.2.
4. Minimum driveway 4.5 m for one-way circulation, 6m for two-way circulation.
5. Minimum Four-wheeler bay size shall be 2.5 m x 5 m.
6. The height of basements from floor to ceiling shall be as per Regulation no. 5.2.4.7.The ramp within setbacks shall be permissible subject to free and convenient movement of fire tender.
7. Adequate fire safety, light and ventilation and air change through mechanical means shall be provided.
8. Permissible uses in basements shall be as per Regulation no. 5.2.4.7.
9. Basement parking can also be Mechanized instead of conventional ramps.
10. Combination of two-wheeler & four-wheeler vehicle parking Shall be allowed.

5.2.2.1.3 Common Parking Space

If the total parking space as required by these Regulations is provided by a group of property owners for their mutual benefit within a distance 500 m from their property, such common use of space for parking may be construed as meeting the off-street parking requirements under these Regulations subject to the approval of the concerned area authority. If such common parking space is proposed for a group of buildings, the owners of such buildings shall submit a layout thereof and also a registered undertaking stating that the area earmarked for the parking space will not be built upon and will be utilized for parking purpose only.

5.2.2.1.4 Parking for Non-Motorized Vehicular Zone (NMV Zones)

For NMV Zones required parking space shall be provided as per Regulation no. 5.2.5.1.2 in the premises itself. If the required parking space cannot be provided, then plot owners can pay parking facility charges as per Regulation no. 5.2.7.5.

5.2.3 Premium/Charges for Mixed-use, Commercial-Use, Additional F.A.R. & Parking in Respective Zones

Table No. 5 – 6 Premium/ Charges

Particulars	R	M	C	PSP
Value Capture Fund	Applicable	Applicable	Applicable	Applicable
Mixed-Use (annually) (as per regulation no. 5.2.4.4	Applicable	N.A.	N.A.	N.A.
Commercial-Use (onetime) (as per regulation no. 5.2.4.2)	N.A.	Applicable	Applicable	N.A.
Additional F.A.R. (one-time) (as per regulation no. 5.2.4.3)	N.A.	Applicable	Applicable	Applicable
Parking Charges (one-time) (as per regulation no. 5.2.4.5)	Applicable	Applicable	Applicable	Applicable
Amalgamation Charges (one-time) (as per regulation no. 5.2.4.6)	Applicable	Applicable	Applicable	Applicable

5.2.4 Value Capture Finance

Following are the Value Capture Finance Methods & Regulations respectively.

5.2.4.1 Value Capture Fund

1. Value Capture Fund is applicable on Influence Zone. Influence Zone will be 60m on either side of RoW developed for public transport system and the roads must be with RoW 18m and above.
2. For the properties abutting to the road as prescribed above, the Value Capture Fund should be at the rate of 3% on Stamp Duty Rate.
3. For the properties which are not abutting the road and backside of the road facing properties, the fees shall be at the rate of 1.5% on Stamp Duty Rate.
4. The above fees shall be charged at the time of building permission by Implementing Agency.

5.2.4.2 Commercial Use Charges

1. These are the charges for the Commercial use, shall be taken as premium on FAR and shall be payable once.
2. These charges shall be applicable for M Zone & C Zone.
3. Commercial use charges will be calculated as
4. Total payable Fee = (Plot/Land area) x (Consumed FAR) x (land value, Prevailing collector rate) x 0.03

5.2.4.3 Premium on additional FAR.

1. These are the charges for additional Floor Area Ratio (FAR) and shall be payable once.
2. These charges shall be applicable for R-C zone, C zone, PSP Zone.

3. The additional FAR permitted shall not exceed the FAR as permitted.
4. An application for availing additional floor area ratio (FAR) shall be made to the BPIA . Such application shall be accompanied by the requisite documents and a fee of Rs 5000. The BPIA after examination the application may allow additional floor area ratio to the applicant to the extent permitted in rule hereinabove.
5. The application for grant of additional FAR shall be considered only in case the plot in questions is a part of a layout plan duly approved by the BPIA.
6. Premium on Additional FAR will be calculated as follows:
7. = (Purchased Additional FAR in Sqm.) x (25% of the prevailing Stamp Duty Rate)
8. The Sale/Purchase of Transfer of development rights shall be as per the Govt. Policy & regulations.
9. After purchase of additional FAR, Authority will issue the certificate of extra FAR purchased from the Authority. Only after getting the certificate, the property owner will get the building permission for additional FAR.

5.2.4.4 Premium on Mixed use.

1. These are the charges for the Mixed use (non-residential use) in the residential use if allowed in Master Plan and shall be payable annually.
2. These charges shall be applicable for R Zone.
3. Premium on Mixed Use will be calculated as follows:
4. Total payable amount: (Prevailing Stamp Duty Rate (per Sqm) x 0.01 x (Total Area used as non-residential).
5. As per the mixed-use policy, use of non-residential activity in residential building shall pay the above prescribed charges before building permission. These charges shall be paid before building permission.
6. Any mixed use which is in exitance in residential area, the owner shall get the revised approval from BPIA within 2 years from the date of notification of these regulations. If the owner fails to get the revised permission then, owner will be penalized 5 times the additional charges for the mixed use for the period after the date of notification.
7. These mixed-use charges which will be deposited with the ULB, the particular amount will be used for infrastructure development and parking development.
8. The ULB has a right to inspect, penalize the properties which are under mixed use category.

5.2.4.5 Premium on Parking

These charges shall be applicable for R Zone, M zone, C zone, PSP Zone.

If required parking space cannot be provided due to plot size constraints, then plot owners can pay parking facility charges as follow:

Parking Charges = (Prevailing Stamp Duty Rate) x 25% x (Total Required Parking Area)

5.2.4.6 Premium on Plot amalgamation (Subject to Policy)

These charges shall be applicable for R-Zone, M zone, C zone, PSP Zone.

Plot amalgamation charges will be calculated as

1. For R- Zone Premium = (Total amalgamated land in Sqm) x Rs 100
2. For M-Zone & C-Zone Premium = (Total amalgamated land in Sqm) x Rs 200
3. For PSP-Zone Premium = (Total amalgamated land in Sqm) x Rs 50

5.2.4.7 Design consideration for Streets

1. Provision of Footpaths on all streets, except on traffic calmed small streets.
2. Footpath shall be continuous unobstructed & minimum width shall be as per figure below.
3. Provision of Bus Stops (Shall not create hindrance for pedestrians) & Safe pedestrian crossings near Bus stops.
4. Provision of unobstructed Street Furniture's
5. Litter/Trash bin.
6. Informatory & cautionary signages (as per IRC guidelines)
7. Space for Public toilet (unobstructed)
8. All the Underground utilities for e.g.: storm water drainage, sewerage lines, water pipe line, telecom line etc. shall be as per section proposed in the annexure.
9. Road markings (as per IRC guidelines).

Note: Refer & follow Street Design as per IRC guidelines for detail design regulations.

5.2.5 Regulations for Environmentally Conservation Green Zone (CG)

1. It is an environmentally conserved land-use where no building construction is permitted.
2. Development activities within this zone shall confirm to the regulations given here under;
   a. The green buffer along the Nallas/ Rivers or the open space along the River/tributary shall be minimum 30 m from the highest water level or as provided in the master plan/zonal development plan or as provided under water regulatory act, whichever is more.
   b. Development of road/mechanized parking/off-street parking shall be permissible in this zone by the BPIA.
   c. Plantation and sit outs, shall be permissible within this zone by the BPIA.
   d. Development permissions for Recreational activities or sightseeing areas shall be given in these regulations within this zone by the BPIA.
   e. Structures of historical/heritage importance in this zone shall be preserved. Any restoration works needed to be carried out shall be encouraged with the permission of the BPIA.
   f. Existing building coming within this zone shall not allowed to add any additional coverage or F.A.R.

5.2.6 Regulations for Redevelopment Parcels

The following regulations are applicable for the Redevelopment land parcels.

5.2.6.1 Permissible Uses

5.2.6.1.1 Permissible Uses for Redevelopment area lying in dominant zone

Permissible uses & Non-Permissible uses shall be as per the dominant zone on which the Redevelopment parcel lies and shall be as per Regulations no. 5.1.3 above.

1. The percentage of permissible uses allowed on Total Built-up area of Redevelopment Parcel shall be as per Table below;

Table No. 5 - 7 Permissible uses of a Redevelopment Parcel lying on specified predominant land-use

S.No.	Permissible Use	Percentage of Permissible uses on Total Built-up area of Redevelopment Parcel	
		If, it lies in Predominantly Residential zone	If, it lies in Predominantly Commercial zone
1.	Residential	70 %	40%
2.	Commercial	20%	50%
3.	PSP	10%	10%

Note:

1. Area under PSP may be accommodated in Residential or Commercial as per requirement.

5.2.6.1.2 Permissible Uses by Road width

The Minimum width of the abutting road shall not be less than 15 M for redevelopment parcels.

5.2.6.2 Development of Land

1. Minimum area of the land/plot for redevelopment shall be 0.2 Hectare, plot may be owned by an individual/ society or pooled of different owners or by govt. body.
2. Aforesaid plot/land for Redevelopment, must have planning permission in which the city level circulation is coordinated, essential provisions for sector/sub sector level amenities, facilities, utilities and services and provision for informal sector shall be ensured.
3. Development of Redevelopment parcels shall be permissible only if, minimum Plot width/Land Frontage is 30 m on the abutting road with minimum width of not less than 18 m.

Note:

Provision for economically weaker section shall be incorporated in the Redevelopment Layouts as per JK Housing Policy 2020 or the policy of the Govt. laid down from time to time.

5.2.6.3 Permissible Floor Area Ratio (FAR) For Redevelopment Parcels

1. The base FAR for Redevelopment parcel shall be as per 5.2.1.1 & 5.2.1.2.
2. Additional FAR purchasable shall be as permitted by Government.
3. Area covered by Atrium and mezzanine floors shall be counted towards computation of FAR.

5.2.6.4 Building Height for Redevelopment Parcels

The Maximum Permissible Building Height shall be as per provisions of Regulation no. 5.2.1.1 & 5.2.1.2 and regulated according to the width of the road on which it abuts as mentioned in the above-mentioned regulation.

5.2.6.5 Setbacks for Redevelopment Parcels

5.2.6.5.1 Road Side Setbacks for Redevelopment Parcels

The Setbacks for any building development shall be as per Regulation no. 5.2.1.1 & 5.2.1.2 whichever implies.

5.2.6.5.2 Minimum Setback between Buildings

1. Minimum distance between two buildings shall be 1/3rd the height of taller building.

2. If two buildings next to each other have different heights, required Setback for taller building shall be applicable. For example- if one building is of 25ms and the adjacent building is of 45ms in height, the minimum Setback between these two buildings shall be 15.0ms.

5.2.6.5.3 Permissible Ground Coverage

1. The maximum permissible ground coverage shall be 50%.
2. Minimum Common Open Space of 10% shall be provided and no edge of such open space shall be less than 7.5m.

5.2.6.6 Parking

1. The parking norms for Redevelopment parcels shall be as per Regulation no. 5.2.5.1.2
2. Provision of individual parking shall be compulsorily provided for every redevelopment land parcel.

5.2.7 Regulations for Urban Heritage Area

5.2.7.1 Applicability

These Regulations will apply to those buildings, artefacts, structures and/or precincts of historical and/or aesthetical and/or architectural and/or cultural value.

5.2.7.2 Restriction on Development/Redevelopment/Repairs, Etc.

1. No development or redevelopment or engineering operations or additions, alterations, repairs, renovation including the painting of buildings, replacement of special features or demolition of the whole or any part thereof or plastering of listed / heritage buildings or listed Heritage precincts shall be allowed except with the prior written permission of the BPIA in consultation with the Heritage Conservation Committee to be appointed by Government. The BPIA may overrule the recommendations of the said Heritage Conservation committee by recording reasons in writing.
2. In relation to religious buildings, the changes, repairs, additions, alterations and renovations required on religious grounds mentioned in sacred texts or as a part of holy practices laid down in religious codes shall be treated as permissible, subject to their being in accordance and consonance with the original structure and architecture designs, aesthetics and other special features thereof. Provided that before arriving at his decision, the BPIA may take in to consideration the recommendations of the Heritage Conservation Committee.
3. Identified and listed heritage building even under private ownership will not be allowed to be demolished.

5.2.7.3 Power to Alter, Modify the List of Heritage Buildings and Heritage Precincts

The list of buildings, artefacts, structures and precincts of Historical, and/or aesthetical and/or architectural and/or cultural value to which this Regulations applies may be supplemented, altered, deleted or modified from time to time by Government on receipt of proposals from the BPIA or by the Government.

5.2.7.4 Grant of Transferable Development Rights in Case of Loss of Development Rights

If any applications for development is refused under this Regulations and conditions are imposed while permitting such development which deprive the owner/lessee of any unconsumed development rights, the said owner/lessee shall be compensated by grant of Development Right. Certificate in terms of TDR as per TDR policy. The extent of TDR permissible will be difference between the permissible development rights on the plot and the consumed BUA of the heritage

structure. The grant of TDR shall be subject to a contract between the owner/lessee and concerned authority/development authority, binding the owner/ lessee to conserve the heritage building in a prescribed manner.

5.2.7.5 Grading of The Listed Buildings/ Listed Precincts

The list of Heritage Building, Heritage precincts, "Grades" such as “I”, or “II” will be formulated. The meaning of these Grades and basic guidelines for development permissions are as follows:

Table No. 5 - 8 Grading of the Listed Buildings/ Listed Precincts

S.No.	Grade - I	Grade - II
1.	Scope - Heritage Grade-I comprises building/ precincts, of regional or local importance, possessing special architectural or aesthetical merit or cultural or historical value, though of a lower order. They are local landmarks contributing to the image and identity of the city. They may be the work of master craftsmen or may be models of proportion and ornamentation, or designed to suit particular climate within the premises of Heritage Grade-I buildings (open space/compound) of which independent/separate additional building(s)/structure(s) may be permitted to be constructed, owing to the availability of adequate surrounding open space and unconsumed F.A.R., *will be* assigned as Grade-IB. The remaining Grade -I buildings will be assigned Grade- IA.	Heritage Grade-II Comprises of buildings and precinctsof importance for town scape, they evoke architectural aesthetic or sociological interest though not as much as in Heritage Grade- I. These contribute to determine the character of the locality, and can be representative of a life style of a particular community or region and may also be distinguished by setting of a street-line or special character of the facade and uniformity of height, width and scale.
2.	Objective - Heritage Grade-I deserves intelligent conservation.	Heritage Grade II - Deserves protection of unique features and attributes.
3.	Scope for development – Grade-IA: In addition to the scope for development permissible for Grade- I, internal changes, and adaptive reuse may be generally allowed. In certain circumstances, extension of a Grade-IA heritage building may also be allowed; provided that such extension shall be in harmony with (and shalt not detract from) the Grade-IA heritage building concerned or precinct, especially in terms of height and/or facade. External changes too may be permitted, subject to strict scrutiny. Care should be taken to ensure the conservation of	External and internal changes and adaptive reuse would generally be allowed. Changes can include extensions / additional buildings in the same plot or compound provided that extension / additional building is in harmony with and does not detract from the existing heritage building / precincts especially in terms of height and/or facade. Reconstruction may be allowed when the building is structurally weak or unsafe or when it has been affected by accidental fire or any other calamity or if reconstruction is required to consume the permissible F.A.R. and no option other than reconstruction is available.

	all special aspects/features of Grade-IA building concerned. Grade-IB: In addition to above, additional building(s) in the same plot or compound may, in certain circumstances, be allowed; provided that, such additional building(s) shall be in harmony with (and shall not detract from) the Grade-IA heritage building(s) or precinct, especially in terms of height and/or facade and such buildings shall be termed as Grade- IB heritage buildings.	Reconstruction may also be allowed in case of those buildings which attracts the provisions of Reconstruction may be allowed in those buildings being repaired/ reconstructed by Development Authority. However, unless absolutely essential nothing should spoil or destroy any special features or attributes for which It is placed in the Heritage List.
4.	Procedure: Development permission would be given by the Concerned Development Authority in consultation with Heritage Conservation Committee.	Development permission would be given by the concerned authority in consonance with guidelines to be laid down by Government in consultation with Heritage Conservation Committee.
5.	Vistas / Surrounding Development- All the development in the areas surrounding Heritage Grade - I shall be regulated and controlled, ensuring that it does not overshadow the grandeur of or views from Heritage Grade-I.	

5.2.8 Urban Design Regulations

5.2.8.1 Corner Articulation:

Buildings located at the corner of intersection/ T- intersection plays an important role for Heritage Precinct Area as well as for the entire Planning area. Hence such Buildings shall have to provide a chamfer of 3m or rounded corner with 3m radius

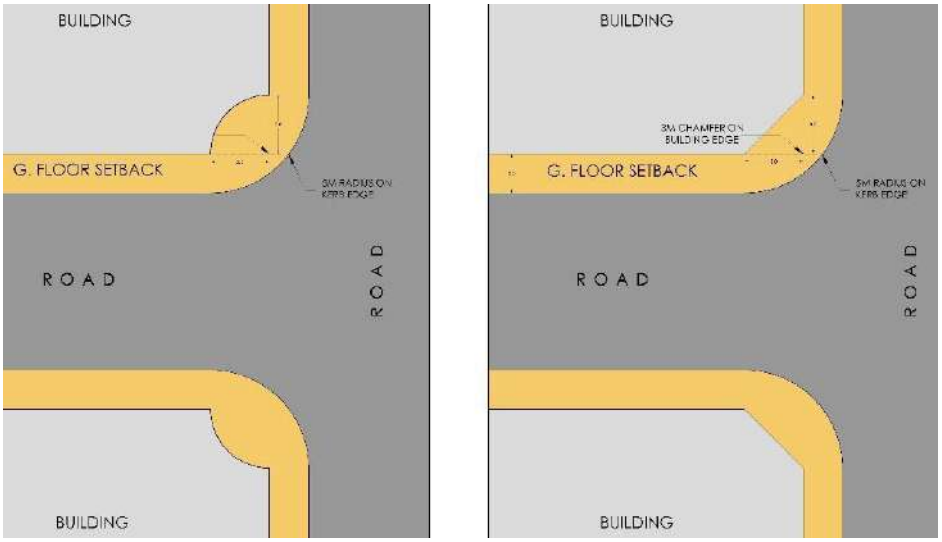

Figure 72 Corner articulation

5.2.8.2 Mandatory Building Line

All developments on the streets shall follow existing dominant front setback as suggested in this chapter.

General Note

Table 5-9

Plinth Level (Ground Floor Finish Level)	Consistent 300 mm from centre of Road Line
Public Walkway Level	150mm from centre of Road Line
Signage Height / Shopfront Glass Height	To be Consistent 3.0m high from Walkway Level with Clear Shop Front Glass Height of 2.7m
Min. Ground Floor Clear Height	3.0m (Clear from Bottom of Slab to Walkway Top of Finish)

Notes:

1. Continuity of Street-Wall: All buildings to align with adjacent building including Ground Floor Shopfront
2. Awning Projection: All Shopfronts to provide 1.5m wide retractable Awning of approved Design & Color to be fixed @ 3.2m from Road Level
3. Signage: Signage should not be more than 300mm thick. Signage Color for every Street shall be as per Advertisement Guidelines as notified by concerned development authority.
4. No Projection is allowed in Right of Way Line / Setback Line, in case there's requirement of Balcony that should be designed as a concealed / covered balcony within the setback limits.
5. Steps/ramps for approaching plinth shall not be allowed in the front MOS.

5.2.8.3 Mandatory Facade guidelines

After detail DPR for facade design guidelines for individual street, owner shall mandatory follow the same.

5.2.8.4 Extensions to Existing Buildings

The proposed extension should be developed with due consideration its appearance and effect on the street scene, its impact on the amenities of neighbouring buildings. The proposed extensions should conform to Urban Design Guidelines for respective Street.

In addition to the Urban Design Guideline for Particular Street, the Proposed Extension to existing building should follow additional guidelines as listed below relating to the size and design of extensions, and the circumstances where extensions are generally acceptable, are intended to act as a guide for building owners. The design and layout of extensions should reflect the design and proportions of the original building particularly for building with Traditional Features and building older than 15 years, for example: -

- Doors and windows should reflect the size, style and sill/lintel of the original.
- Materials should match or be in harmony with those of the original building.
- If the original building had a pitched roof, proposed extension / alteration should also have similar roof form.
- Where an existing building is adjoining a road on two sides, i.e., a corner plot, the extension should incorporate sufficient space for turning radius of vehicles as defined by Guideline.

5.2.8.5 Advertisements / Signage

- All Advertisement & Signage to be installed in Urban Design Control Area would require permission from concerned Planning Authority unless specific exemption is provided in Guidelines. The following criteria will be applied to all advertisements requiring planning permission.
- Advertisement / Signage hoardings and free-standing signs will not be allowed, except where they are installed on a temporary basis, to screen vacant, untidy or under-construction sites.
- Advertisements / Signage on building should be of a scale and design which relate to the style of the premises on which they are to be displayed. Illuminated fascia signs should be no deeper than 300mm. The illumination of individual letters is preferable to the illumination of the whole sign.
- Advertisements / Signage on side walls and at first floor level will not be allowed.
- Projecting signs shall not be allowed except in certain specific cases which would too should be restricted one sign per building and should not project more than 750 mm (including brackets). On illuminated signs, the letters only should be illuminated. Such Projecting Signs should be 3.5m above Road Level.
- Signs and advertisements on shop fronts will normally be restricted to ground floor front wall area in the space provided in the Urban Design Guidelines.

5.2.8.6 New Shopfronts / Renovated Building

- New shopfronts / Renovated Buildings should respect the scale and design of the premises in which they are installed.
- New shopfronts / Renovated Buildings should not involve the removal or alteration of features which are of historical or architectural interest.
- Existing windows should not be enlarged above ground floor level, nor should Ground Floor Façade theme extend above the level of the first-floor window sills.
- New Façade should not link multiple building units which are individual and distinct.

- In Commercial areas, where owner requires a roller shutter then a roller grille should be provided in preference to a solid roller shutter. The roller box housing should be concealed where possible. Also, wherever possible Shutter should be on the inside shopfront / shop face such that Shopfront is visually accessible during closed hours.

5.2.8.7 Buildings in Heritage Zone

- The Authority expects the design of shopfronts and the fronts of commercial premises, to be of a high standard in Heritage Zone.
- Materials used should be in keeping with the character of the building.
- Where a commercial Corporate Style is required it should be adapted to particular building's existing theme.
- Stall risers should be retained or replaced where they have previously been removed, as they provide a visual base to the shopfront. Stall riser can also act as Public Seating along Vehicular Street and should be encouraged.

5.2.8.8 Advertisements in Heritage Zone

- Advertisements within Heritage Zone should be designed so that they are in keeping with the character of the building and the area as a whole.
- Where illuminated advertisements should not be internally illuminated but externally lit by spotlight Individually illuminated letters may be acceptable.
- Large / Modern illuminated signs and illuminated projecting signs on listed buildings / Heritage Street shall not be allowed. Advertisements should be of a size, design and of materials that complement the character of the building / street.

5.2.8.9 Street Specific Guidelines

- Every street has its distinct character by its economic and cultural value, it should be reflected by its design guidelines like:
- Some of the buildings with the distinct architecture style should be preserved as it is with some modification in colour and design if required.
- Colour and design elements on building facade along with signage colours should be inspired by local heritage building in vicinity which will provide the street its legibility.
- Design and colour of all the street and urban elements like railing, street light poles, urban signage, benches, etc. should be inspired from local heritage.
- Building colour and paving on the road should respond to each other.

CHAPTER 6: SPACE REQUIREMENT FOR DIFFERENT PARTS OF BUILDING

6.1 Main Building

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

(a) Habitable rooms shall have minimum plinth height of 0.45 m from the ground level.

(b) Parking garage may have no plinth.

(c) The ground floor of a building may be permitted on stills / pillars instead of a solid plinth with a height of 2.4m. In case of slabs with beams height should not exceed 2.8m. and further that this space shall at all the time be kept free from any enclosure except for genuine stair-case. Provided further that an electric m room, room for telephone D.B: bath-room, watch room, stair case room, pump room, water closet, servant room, security cabin may be permitted subject to maximum built up area of 15 Sq.m. allowed with a minimum plinth height of 30 cm and this area shall not be considered towards computation of FAR

6.2 Interior courtyards, covered parking spaces and garages.

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

6.3 Habitable room size and width

The minimum size and width shall be as given NBC-2016

6.4 Non –residential Buildings

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

6.5 Kitchen

Any room to be used as kitchen shall have:

(a) Unless separately provided in pantry, means for washing of kitchen utensils, which shall lead directly or through a sink to a grated and trapped – connection to the waste pipe;

(b) An impermeable floor;

(c) At least a window not less than 1 Sq.m in area open directly to an interior or exterior open space, but not into a shaft and;

(d) In residential building 15 m. or more in height refuse chutes.

6.6 Bathroom and W.C.

Every bathroom or water closet shall:

(a) Be so situated that at least one of its walls open to external air and shall have a minimum opening in the form of window or ventilation to the extent of 0.37 sq. m.

(b) Not to be directly over any room other than another latrine, washing place, bath or terrace unless it has a watertight floor.

(c) Have the platform or seat made of watertight non-absorbent material.

(d) Be enclosed by walls or partitions and the surface of every such wall partition shall be finished with a smooth impervious material to a height of not less than 1.0m. above the floor of such a room.

(e) Be provided with an impervious floor covering, sloping towards the drain with a suitable grade and not towards Verandah or any other place.

(f) Have a window or ventilator, opening to a shaft or open space, of area not less than 0.3Sq.m. with side not less than 0.3 m.

(g) No room containing water closets shall be used for any purpose except as a lavatory.

(h) Every water closed and / or a set of urinals shall have flushing cistern of adequate capacity attached to it.

(i) A toilet on terrace having a maximum of 2.2 m height shall be permitted to condition that the area of toilet be counted in FAR.

(j) All the sewerage outlets shall be connected to the Municipal Sewerage system. Where no such system exists, a septic tank shall be provided within the plot conforming to the requirements.

6.7 Mezzanine floor

6.7.1 Height

It shall have a minimum height of 2.2 M.

6.7.2 Size

The minimum size of the mezzanine floor if it is to be used as a living room shall not be less than 9.5 Sq.m. The aggregate area of such mezzanine floor in a building shall in no case exceed one-third the plinth area of the building.

6.7.3 Other Requirements

A mezzanine floor may be permitted over a room or a compartment, provided,

(a) it conforms to the standard of living rooms as regards lighting and ventilation in case the size of mezzanine floor is 9.5 Sq.m. or more.

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

(c) Such mezzanine floor is not subdivided into smaller compartments.

(d) Such mezzanine floor or any part of it shall not be used as a kitchen; and

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

6.8 Corner site

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

6.9 Damp site

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

6.10 Distance from electric line

An overhead line shall not cross an existing building as far as possible and no building shall be constructed under an existing overhead line. No accessible point from any Verandah, balcony, or the like shall be allowed to be erected or re-erected or any additions or alterations made toa building not

having the following minimum clearances from an overhead electric supply line, in accordance with the current Central Electricity Authority (**Measures Relating to Safety and Electric Supply) Regulations2010** as amended from time to time:

(a) **Clearance of buildings from lines of voltages and service lines not exceeding 650V**

(i) An overhead line shall not cross over an existing building as far as possible and no building shall be constructed under an existing overhead line.

(ii) Where an overhead line of voltage not exceeding 650 V passes above or adjacent to or terminates on any building, the following minimum clearances from any accessible point, on the basis of maximum sag, shall be observed:

(iii) For any Flat Roof, Open Balcony, Verandah roof and Lean-to-roof:

- Where the line passes above the building, a vertical clearance of2.5mfromhe highest point, and
- When the line passes adjacent to the building, a horizontal clearance of 1.2 m from the nearest point, and

(iv) For pitched roof:

- Where the line passes above the building, a vertical clearance of 2.5 m immediately under the line, and
- When the line passes adjacent to the building, a horizontal clearance of 1.2 m.

(v) The horizontal clearance shall be measured when the line is at a maximum deflection from the vertical due to wind pressure.

(vi) Any conductor so situated as to have a clearance less than that specified above shall be adequately insulated and shall be attached at suitable intervals to a bare earthed bearer wire having a breaking strength of not less than 350 kg.

(b) **Clearances front buildings of lines of voltages exceeding 650 V.**

(i) An overhead line shall not cross over an existing building as far as possible and no building shall be constructed under an existing overhead line.

(ii) Where an overhead line of voltage exceeding650 V passes above or adjacent to any building or part of a building, it shall have on the basis of maximum saga vertical clearance above the highest part of the building immediately under such line, of not less than:

For lines of voltages exceeding650V	3.7 m up to and including 33 kV; and
For lines of voltages exceeding 33 KV	3.7 m plus 0.30 m for every additional33 kV or part thereof.

(iii) The horizontal clearance between the nearest conductor and any part of such building shall, on the basis of maximum deflection due to wind pressure, be not less than:

For lines of Voltages exceeding 650 V and up to and including 11 k	: 1.2 m
For lines of voltages exceeding 11 kV and up to and including 33 kV.	2.0 m
For lines of voltages exceeding 33 Kv	2.0 m plus 0.30 m for every additional 33 kV or part thereof.

(iv) For high voltage direct current (FTVDC) systems, vertical clearance and horizontal clearance, on the basis of maximum deflection due to wind pressure, from building shall be maintained as below:

Table 6—1: Vertical and Horizontal Clearence for High Voltage Direct Current

S. No.	D.C Voltage	Vertical Clearance	Horizontal Clearance
1	100	4.6	2.9
2	200	5.8	4.1
3	300	7	5.3
4	400	7	6.2
5	500	9.1	7.4
6	600	10.3	8.6
7	800	12.4	10.7

Source:- NBC 2016

6.11 Loft and Ledge

6.11.1 Height

The minimum headroom for loft and ledge shall be 2.2 m.

6.11.2 Size

A loft and ledge in a habitable room shall not cover more than 25 percent of the area of the floor on which it is constructed and shall not interfere with the ventilation of the room under any circumstances.

6.12 Chimneys

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

6.13 Parapet

Parapet walls and hand rails provided on the edges of roof terraces, balcony, Verandah, etc, shall not be less than 1.0 m and not more than 1.2 m in height from the finished floor level.

Note:

(a) The above shall not apply where roof terrace is not accessible by a staircase.

(b) However, on terrace floor in the portion where installations like DG Set, Water Tank and other, screening parapet of a suitable height may be constructed to hide such equipment's etc. and there is no need to have uniform increase in the height of the parapet.

6.14 Cabin

The size of cabins shall not be less than 3.0 Sq.m with a minimum width of 1.0 m. The clear passages within the divided space of any floor shall not be less than 0. 75 m and the distance from the farthest space in a cabin to any exit shall not be more than 18.5 m. In case the subdivided cabin does not derive direct lighting and ventilation from any open spaces/ mechanical means. The maximum height of the cabin shall be 2.2 m.

6.15 Boundary Wall

The requirements of the boundary Wall are given below:

(a) Except with the special permission of the Authority. The maximum height of the compound wall shall be 1.75 m above the centre line of the front street. Compound wall up to 2.5 m height

may be permitted if the top 0.75 m is of open type construction of a design to be approved by the Authority.

(b) In the case of a comer plot, the height of the boundary wall shall be restricted to 0.75 m for a length of 10 m on the front and side of the intersections and the balance height of 0. 75 m, if required in accordance with (a) may be made up of open type construction (through railings) and of design to be approved by the Authority.

(c) However, the provisions of (a) and (b) are not applicable to boundary walls of jails. In industrial buildings, electric substations, transformer stations, institutional buildings like sanitoria, hospitals, industrial buildings like workshops, factories and educational buildings like schools, colleges, including hostels, and other uses of public utility undertakings and strategically sensitive buildings a height up to 2.4m may be permitted by the Authority.

6.16 Wells

Wells, intended to supply water for human consumption or domestic purposes, where provided.

6.7.1 Location

The well shall be located,

(a) Not less than 15m from any ash pit, refuse pit, earth closet or privy and shall be located on a site upwards from the earth closet or privy;

(b) Not less than 18m from any cesspit soakaway or borehole latrine and shall be located on a site upwards from the earth closet or privy;

(c) Such that contamination by the movement of sub-soil or other water is unlikely; and

(d) Not under a tree or otherwise it should have a canopy over it, so that leaves and twigs may not fall into the well and rot.

6.7.2 Requirements

The well shall:

(a) Have a minimum internal diameter of not less than 1m; be constructed to a height not less than 1m above the surrounding ground level, to form a parapet or kerb and to prevent surface water from flowing into a well ,and shall be surrounded with a paving constructed of impervious material which shall extend for a distance of not less than 1.8 m in every direction from the parapet from the kerb forming the well head and the upper surface of such a paving shall be sloped away from the well;

(b) Be of sound and permanent construction (Pucca) throughout. Temporary or exposed (Kutcha) wells shall be permitted only in fields or gardens for purposes of irrigation; and

(c) have the interior surface of the lining or walls of the well be render dim pervious for a depth of not less than 1.8m measured from the level of the ground immediately adjoining the well-head.

6.17 Office-Cum-Letter Box Room

In the case of multi-storeyed multifamily dwelling apartments constructed by existing and proposed Cooperative Housing Societies or Apartment Owners Associations, limited companies and proposed societies, an office -cum-letter box room of dimension3.6 m X 3 m shall be provided on the ground floor. In case the number of flats is more than20, the maximum size of the office-cum-letter box room shall be 20sqm.

6.18 Meter Rooms

For all buildings above 15 m in height and in special occupancies, like educational assembly, institutional. industrial storage hazardous and mixed occupancies with any of the aforesaid occupancies having area more than 500sqm on each floor, provision shall be made for an independent and ventilated m (service)room, as per requirements of electric (service) supply undertakings on the ground floor with direct access from outside for the purpose of termination of electric supply from the licensee's service and alternative supply cables. The doors provided for the service room shall have fire resistance of not less than two hours.

6.19 Stairway

Stairway shall conform to the following provisions in addition to items (a) to (g) below. In addition, in order to satisfy firefighting requirements any stairway identified as an exit stairway shall confirm to the requirement in fire protection regulations provided in these regulations.

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

Table 6—2: The minimum width of a staircase (m)

S.No.	Type of occupant	Minimum width of staircase/ Stairway I Corridors in m
1	Residential building Low rise Hotels and High rise	 1.2 1.5
2	Education building Up to24 m. High Over 24 m. High	 1.5 2.0
3	Institutional buildings (i.e. Hospital) Up to 10 beds Over to beds	 1.5 2.0
4	Assembly buildings	2.0
5	Mercantile, business, Industrial Storage, Hazardous Buildings Low rise High rise	 1.5 2.0

(b) Flight.: No flight shall contain more than 12 rises but in residential buildings in narrow plots and in high density Housing a single flight staircase may be permitted.

(c) Risers: The maximum height of a riser shall be 19cm in residential buildings and 16cmin any other occupancy. However, in an internal stairway within a dwelling area, a riser may be 25cm high.

(d) Treads: The minimum width of the tread without nosing shall be 25cm for staircase of a residential building, other than fire escapes. In other occupancies the minimum width of the tread, shall be 36cm. It shall have a non-slippery finish and shall be maintained in that fashion.

(e) Head room: The minimum head room in passage under the landing of a staircase, shall be 2.2M.

(f) Floor indicator: The number of each floor shall be conspicuously painted in figures at least 15cmn large on the wall facing the flight of a stairway or at such suitable place is distinctly visible from the flights.

(g) Handrail: Handrail of a minimum height of 0.9m from the centre of the tread shall be provided.

(h) Exit Requirements: All aspects of exit requirements for corridors, doors, stair cases, ramps, etc in respect of widths, travel distance shall be as per Part 4 'Fire and Life Safety' of NBC-2016.

6.20 Roofs

(a) In the areas receiving snowfall the roof should be sloping and the slope shall be dictated by the amount of snowfall.

(b) The roof of a building shall be so designed and constructed as to effectively drain water by means of sufficient rain water pipes of adequate size, wherever required, so arranged, jointed and fixed as to ensure that the rain water is carried away from the building without causing dampness in any part of the walls, roof or foundations of the building or an adjacent building.

(c) The Authority may require rainwater pipes to be connected to a drain or sewer to a covered channel formed beneath the public footpath to connect the rain-water pipe to the road gutter or in any other approved manner.

(d) Rain-water pipes shall be affixed to the outside of the external walls of the building or in recesses or chases cut or formed in such external walls or in such other manner as may be approved by the Authority.

(e) It is desirable to conserve rainwater using suitable rainwater harvesting techniques including by roof water collection. In this context, reference shall be made to Part 9 'Plumbing Services (including Solid Waste Management), Section 2 - Drainage and Sanitation' of the NBC 2016.

6.21 Ramps

(a) Ramps for pedestrians:

i) General: The provisions applicable to stairway shall generally apply to ramps. A ramp in a hospital shall not be less than 2.4 m wide for stretcher and not for vehicular movement in addition to satisfying the firefighting requirements.

ii) Slope: A ramp shall have slope of (not more than 1:10). It shall be of non-slippery material.

iii) Handrail: A handrail shall be provided on both the sides of the ramp.

(b) Ramps for handicapped people: The provision of the ramp with handrails for every public building is compulsory for handicapped people as per the National Building Code 2016

(c) The ramp to basement and parking floors shall not be less than 7.2m wide for two-way traffic and 4m wide for one-way traffic, provided with Gradient of 1:10 for L.M.V .

(d) Ramp may also be provided in side setbacks only to basement and not for upper floors which can be sloped considering unhindered movement for fire Engine of minimum 6m wide and in no case the gradient shall be less than 1: 10.

(e) All structural design/safety aspects as per latest BIS Codes & NBC 2016 shall be complied along with consideration of weight of Fire Engine & its manoeuvrings.

(f) Handrails shall be provided on both sides of the ramp.

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

6.22 Stairs, Lifts, Lobbies and Corridor

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

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

Table 6—3: Width of corridor as per length of the corridor (m)

Length of Corridor in M	Width of Corridor in M	
	Residential	Non-Residential
Up to 6	1.0	1.2
Up to 9	1.2	1.5
Up to 15	1.2	2.0
Above 15	1.5	2.5

Notes:

(i) For every additional 9.00m length or part there of the width of the corridor shall be increased by 0.30mup to a maximum of 3.00m.

(ii) In case of starred hotels, the width of the corridor shall be as per the authorized standards of the starred hotels.

(iii) Whereas in case of residential dwelling unit occupied by single family and constructed up to three floors width of the stairs shall not be less than 1.0m.

(b) In case of all non-residential and high-rise residential building the clear width of stair landing exclusive of parapet shall not be less than1.5m.

(c) Minimum stair width for more than 6 tenements on each floor shall be1.5m.

(d) The stair-case and lifts (elevators) shall be so located that it shall be within accessible distance of not more than 25mfromany entrance of tenement or an office provided on each floor.

(e) The number and type of lifts to be provided in different buildings shall be as given in Appendix 'F' & 'F-1'.

6.23 Swimming Pool

(a) Definition: A constructed pool or a tank indoor or outside the building, used for the purpose of swimming, bathing, aquatic sports or games, training, treatment (Therapy) or recreation, meant exclusively for human being, having a depth of water not less than that 60 cm. and the surface area exceeding 23.25 Sq.m. both for the use of public or the institution concerned.

(b) "Capacity of Pools in Relation to Bathers:" The maximum number of persons in bathing attire within the pool enclosures of the bathing area shall not exceed one person per 20 Sq.ft. (1.86 Sq.m.) of pool i.e. the area of the water surface.

(c) "Hand Rail:" A side handrail extending up above and returning to the horizontal surface of the pool deck curb or coping shall be provided at each side of each ladder.

(d) "Depth Markers:" Depth of water shall be clearly marked at or above the water surface on the vertical pool wall and on the edge of the deck or walk-way next to the pool, at maximum points and at the points of break between the deep and shallow portions and at intermediate increments of depth, spaced at not more than 2.5" (7.62 cm) intervals. Depth markers, contrasting with background shall be on both sides of the pool.

(e) "Lighting and Wiring:" Where submarine lighting is used, not less than 0.5 watts shall be employed per Sq.ft. of pool area.

(f) "Area Lightning:" Where submarine lighting is employed, area lighting shall be provided for the deck areas and directed towards the deck areas and away from the pool surface so far as practicable, in a total capacity of not less than 0.6 watt per sq. ft of deck area.

(g) Where submarine lighting is not provided and night. swimming is not permitted combined pool lightning shall be provided in an amount of not less than 2 watts per sq. ft. of total area. All submarine lightning shall be individually earthed and must be watertight. and damp proof.

(h) "Over Head Wiring:" No electrical wiring for electrical or power shall be permitted to pass over within 20 feet of the pool enclosure.

(i) "Shallow Minimum Depth": Every swimming pool shall have a minimum depth in the shallow area of the main swimming area of not less than 0.9 m (3 feet), but not more than 1.07m (3'-6") from the overflow level to the floor

(j) "Shallow Areas:" In a swimming pool with a diving area, the shallow area of the pool shall be defined as the portion between the shallow end and the break point between the shallow area and the diving area. The slope of the floor shall be uniform from the break point between the diving area and the shallow portion to the outside edge of the shallow portion and shall not be greater than 1 in 2 m.

(k) "Vertical Wall Depth:" The pool walls shall be vertical at all points for a depth of not less than 2 ft 6" (0. 76 m)

6.24 Provision of exterior open spaces and height limitation around the building

(a) The open spaces / setbacks covered area, FAR shall be as per Master Plan/Zonal Plan/building byelaws Chapter V.

(b) Every room that is intended for human habitation shall abut on an interior or exterior open space or on to a Verandah open to such interior or exterior open space.

(c) In case of High rise, the exterior open spaces around a building as in Building Bye Laws No. shall be of green or hard surface capable of taking load of fire engine weighing up to 45 tonnes.

(d) In case, kitchen and toilets not abutting either interior or exterior open spaces, mechanical ventilation shall be accepted.

(e) Up to 25% of the total setback area can be sunk for light, ventilation and access to basement, provided fire tender movement is not hindered

6.25 Pollution Control

6.25.1 Air Pollution

All building shall conform to provisions of Environment Act and Rules.

6.25.2 Water Pollution

All building shall conform to provisions of water (prevention and Control of pollution) Act, 1974.

6.25.3 Noise Pollution

All buildings shall maintain ambient air quality standards in respect of noise, as prescribed in the Noise pollution (Regulation and control) Rules 2000.

CHAPTER 7: SPECIAL REQUIREMENTS FOR OCCUPANCY, LAND DEVELOPMENT AND OTHER INDUSTRIAL BUILDING (FACTORIES, WORKSHOPS, ETC)

7.1 Industrial Buildings (Factories, Workshops, etc.)

(a) The relevant provisions contained in the Factory Act. 1948 shall apply for construction of factory buildings. The minimum height. of workrooms shall not be less than 4.5 m measured from the floor level to the lowest point in the ceiling provided that this bye-law shall not apply to room intended for storage, godowns and the like purposes but only in rooms occupied by workers for purposes of manufacture.

(b) In case of small factories, employing less than 50 workers for purposes of manufacturing and carrying on a class of manufacturing covered under the flatted factories and service industries, as driven in the Master Plan, the Authority may allow minimum height up to 3.66 m.

(c) Parking space provisions as provided in Master Plan/ Zonal Plan/Chapter V of these byelaws.

(d) Requirements of water supply, drainage and sanitary installation shall be as per Chapter-4 of Model Building Byelaws2016, but in no case less than 1 W.C. and one urinal shall be permitted.

(e) Each working room shall be provided with adequate number of exits not less than two in number.

(f) No exit shall be less than 1.2 m in width and 2.1 m in height and doors of such exit shall be so arranged that it can be opened easily from inside.

(g) No staircase, lobby corridors or passage shall be less than 1.2 m. in width.

(h) In addition to the requirement in this part, provisions in Chapter-5 and 6shallbe followed.

(i) There shall be provided at all time for each person employed in any room of factory at least 3.5 Sq.m. of floor space exclusive to that occupied by the machinery and a breathing space of at least 15 Cum (further the provision of part VIII section 1 lighting and ventilation of NBC-2016 shall be followed).

(j) The effluent from industries (industrial and biological in nature) shall be treated and shall be of quality to satisfaction of the concerned local bodies before letting out the same into a watercourse or municipal drain.

7.2 Educational Building (School /Colleges)

All educational buildings shall be dealt as per University Grant Commission norms and provision of National Building code 2016 and the Jammu and Kashmir School Education Rules, 2010 (SRO 123, dated 18.03.2010, Education Department) or the latest version of these rules.

7.3 Assembly Building (cinema, theatres, etc,)

The relevant provisions of the Cinematographic Act and Rules of Jammu and Kashmir and IS: 4878 code for construction of cinema Building shall apply for planning, design and construction of cinema Building.

(a) Parking spaces wherever not specifically given shall conform to NBC-2016/URDPFI Guidelines 2014.

(b) Requirements of water supply, drainage and sanitation shall conform to provisions of NBC-2016.

(c) Buildings for religious worship shall not be erected on a site, which has not been approved by the Authority.

7.4 Petrol Filling Station

The location of the petrol filling stations, and its layout shall be approved by the Authority in consultation with the Commissioner of the Division depending upon width of roads and traffic generated location with respect of points of intersections and nearness to occupancies of educational, assembly, storage and hazardous uses.

7.5 Burial and cremation grounds

The Authority shall permit/prohibit burial and cremation grounds to be located in certain area layouts, after scrutiny of the proposal with respect to health and well-being surrounding neighbourhood and shall follow the selection criteria given below:

The proposed development in terms of land use has to be compatible with the ground;

(a) Compatible Land use have to be planned with regards to prevailing wind direction and beyond the prescribed buffer zone. The likely direction of drift in the event of odour has to be accounted while planning the layout;

(b) Adequate land area is to be provided to house furnaces, and for internment of cremated remains;

(c) The site has to have proper accessibility by the local road network.

7.5.1 Buffer Zones

The location of such cremation grounds has to provide for buffer zones from the surrounding land use to account for environmental impact of the operation:

(a) A buffer zone of the order of 200 m (depending on the nature of prevailing winds and the natural topography of the site) between the emission stack and neighbouring residential zone shall be considered.

(b) In any case any buffer zone shall not be less than 100 m.

7.6 Building in mining area

Building in mining area shall not be constructed to a height more than one storey without the special prior approval of the Authority.

7.7 Poultry farms (wherever allowed as per the Master Plan)

7.7.1 The coverage for poultry farms shall be as allowed in case of farmhouses.

7.7.2 Setbacks: As per Chapter 5 under relevant use and category.

7.7.3 Space Planning

There should be a minimum distance of 6.0 m between sheds in the farm.

(a) The minimum distance of any farm building from the property line should be 4.5 m.

(b) The minimum distance of any farm shed or farm building from the dwelling unit should be 7.5 m.

7.7.4 Farm Shed

Shed should be constructed on pillars with walls on two longer sides not higher than 1.2 m.

(a) The remaining height of the farm sheds in respect of two longer sidewalls can be covered with netting or other similar material.

(b) The maximum height of the roof of the farm shed shall not exceed 6.0 m.

7.7.5 Dwelling Units as a Farmhouse

The following norms shall be adopted for construction of dwellings in farmhouses:

(a) The distance of parts of dwelling units from shed shall be as in Building Byelaws 7.7.3

(b) The requirements of parts of dwelling shall be as in CHAPTER 6:

(c) Any other special requirements as specified by the Authority.

7.8 Special buildings not covered

In case of special buildings not covered above, norms as decided by the Authority will be followed.

7.9 Provisions in the public buildings for Differently Abled, Elderly Persons and Children

The building to be designed for Differently Abled, Elderly Persons and Children need special treatment and the provisions for site planning, building requirements etc.

7.10 Defence

Construction of any type of Govt. and private buildings near defence land/premises shall be governed as per guidelines of Govt. of India, Ministry of Defence.

7.11 Railway

Construction of any type of Govt. and private buildings near railway land shall be governed as per guidelines of Govt. of India, Ministry of Railways (Railway Board).

7.12 Distance from water course

(a) The building activity in the areas vulnerable to floods/flash floods shall be regulated under the provision of Irrigation and Flood control department or the flood zonation maps notified by the department from time to time.

(b) No development, whether by filling or otherwise, shall be carried out from the edge of the bank of rivers, within following specified buffer or as per building regulation whichever is more:

Recommendations	**Applicability**
a) Recommended safe distance (Buffer) from Listed Major Watercourse shall be 50m from the edge of such watercourses or as specified under the relevant regulatory act or the relevant Master Plan:	Chenab, Jhelum, Tawi, Ravi, Sutlej and Ujh or any other river/khad
b) Recommended safe distance (Buffer) from Listed Minor Watercourse shall be 30ms from the edge of such watercourses or as specified under the relevant regulatory act or as given in the Master Plan of the local Area:	Mansar, Surinsar, Wular, Nageen, Manasbal and other lakes
c) Recommended safe distance (Buffer) from Unlisted rivulets, tributaries, minor canals and/or Watercourse shall be 20 m	Ranbir canal, Sindh canal and other similar canals

from the edge of such watercourses or as specified under the relevant regulatory act or as given in the Master Plan of the local Area:	

(c) In case of talab, village tanks, lake, water bodies etc., the distance from the water body shall be as may be prescribed under any other general or specific orders of the BPIA.

(d) These restricted development zones and other water courses, which pass through a land shall be developed and maintained according to the discharge of water.

7.13 Rules for development of land

(a) The provisions of Master Plan and norms formulated by Authority shall apply regarding sub-division of a large parcel of land into plots, open areas, roads, spaces for services and community facilities.

(b) Regulations for Low Income Housing. The norms specified for Low-income housing shall be as per the Jammu and Kashmir Housing, Affordable Housing, Slum Redevelopment and Rehabilitation and Townships Policy-2020.

7.14 Penal action for violation of Master Plan/Zonal plan regulation/bye- laws

(a) The Authority under the provisions of their respective Acts shall take action for violation of Master Plan/Zonal Plan/regulations. The Authority may take penal action under respective Acts, which may include stopping of construction activity, demolition/ alteration and levying of penalties as given in (Appendix D: Penal Action for violation of provisions of Master Plan, Zonal Plans and Building Byelaws.)

(b) In addition, action for discontinuance of services in building may also be taken.

7.15 Heritage

Development/Construction/Mining around all ASI protected monuments shall be governed by National Monuments and Archaeological sites and remains Act/Rules (GOI), Jammu and Kashmir Ancient Monuments Preservation (Amendment) Act, 2010 and Jammu and Kashmir Heritage (Conservation and Preservation) Act,2010.

7.16 Forest

All building activity shall conform to provisions of J&K Forest, Wildlife and Bio-Diversity Act.

7.17 Sports Infrastructure

All Provisions related to sports Infrastructure shall be dealt as per the Guidelines/Specifications of Sports Authority of India (SAI), URDPFI Guidelines 2014 and NBC 2016 or its latest version.

CHAPTER 8: ELECTRIC VEHICLE CHARGING INFRASTRUCTURE (EVCI)

8.1 Electric vehicle charging infrastructure (EVCI)

Based on the occupancy pattern and the total parking provisions in the premises of the various building types, charging infrastructures shall be provided only for EVs, which is currently assumed to be 20% of all 'vehicle holding capacity'/'parking capacity' at the premise. Additionally, the building premise will have to have an additional power load, equivalent to the power required for all charging points in a Public Charging Station (PCS) to be operated simultaneously, with a safety factor of1.25

8.2 Residential Buildings (plotted house)

Table 8.1: - Charging Infrastructure requirements for individual house/self-use

Building Type	Plotted House
Ownership of Station	Private (Owner)
Connection and Ming	Domestic m
Type of Charger	Slow chargers as per owner's specific requirements
Modes of Charging	AC (Single charging gun)
Norms of Provisions	Min. 1 SC and additional provisions as per the owner individual.

Note: The charging infrastructure installed by a homeowner shall be construed as a Private Cl meant for self-use (non-commercial basis)

8.2.1 All other buildings (including Group Housing)

Any PCS installed at Public, Private areas or building premises of any category that caters to commercial mode of charging of EVs shall be deemed as a Public Charging Station and shall have to install the minimum requirements of chargers as specified in the Guidelines dated 14.12.2018 of Ministry of Power. However, in order to provide sufficient charging points for the EV share in all vehicles, ratio of types of chargers is recommended in the table below.

Table 8.2:- Charging Infrastructure requirements for PCS (Commercial use)

Building Type	Any Building Type			
Ownership of Station	Service Provider			
Connectionand Ming	Commercial Ming and Payment			
Type of Charger	As per min. requirements specified in MoP Guidelines			
Additional Chargers	PCS service providers shall install additional number of kiosk/chargers beyond the minimum specified requirements to meet the ratio of charging points as prescribed below (by the type of vehicles).			
Norms of Provisions for charging points	4Ws 1 SC- each 3 EVs 1 FC- each 10 EVs	3Ws 1 SC- each 2 EVs	2Ws 1 SC- each 2 EVs	PV (Buses) 1 FC- each 10 EVs

Notes:

- *Charging bays shall be planned currently at 20% capacity of all vehicles including 2Ws and PVs(cars)*
- *Opening and on-spot payment options to be available for all users.*
- *Provision of FCB CS and BS shall not be mandatory and will be at the discretion of the service provider.*

8.2.2 Rationale for EVCI establishment

(a) Rapid urbanization coupled with adoption of mechanized transportation modes has resulted in high emissions of Green House Gases that goes on to impact Global warming. Unless, the global surface temperature rise is restricted to no more than 2^{o}C compared with pre-industrial levels, the IPCC has warned that the world will see irreversible catastrophic climate change.

(b) India being a signatory to the UNFCCC, has pledged for efforts to assess the Greenhouse Gas Emissions (GHG) of anthropogenic origin and removal by sinks. India's per capita emissions are still considered low at 1.9 tonnes (2013), but its total emissions are next only to China and the US and is likely to overtake those of the EU by 2019.

(c) While comparing the Indian cities for their emission scores, Delhi is on top as the biggest emitter at over 38 38 million tonnes of carbon dioxide equivalent overall emissions, followed by Greater Mumbai at 22.7 million tonnes and Chennai at 22.1 million tonnes, Kolkata at 14.8million tonnes, Bangalore at 19.8million tonnes, Hyderabad at 13.7 million tonnes and Ahmedabad at 9million tonnes were the other cities whose emissions for the year were calculated sector wise.

(d) As per the statistics of Transport Department (GNCTD), total number of vehicles in Delhi is more than the combined total vehicles in Mumbai, Chennai and Kolkata. Delhi has 85 private cars per 1000population against the national average of 8 cars per 1000population. In terms of C02 emissions due to motor vehicles, Delhi emits about 12.4 million tonnes while the city of Bengaluru emits about 8.6 million tonnes.

(e) Therefore, addressing the quantum of emissions from the "Transport" and "Domestic" sector emerges to be the high priority subjects under the overarching umbrella of "Climate change mitigation" as committed to the UNFCC.

(f) Encouraging "Electric Vehicles" as a viable option for phased transportation in terms of short and long-distance trips with appropriate "Charging Infrastructure" is therefore, the pre-condition for this paradigm shift I phased migration to sustainable transportation.

(g) For these changes are required in Infrastructure provisions (at Regional and City levels) and in Development Control Regulations (in terms of provisions therein) to include the formulations of norms and standards for "Charging Infrastructure" in the said Master Plan Regulations and UT/State Building Regulations for adoption across the country suiting local conditions.

8.3 EV Charging Technology

8.3.1 Electric Vehicle Supply Equipment (EVSE):

An EVSE is a wall mounted box that supplies electric energy for recharging of electric vehicle batteries. Also, EVSEs have a safety lock-out feature that does not allow current to flow from the device until the plug is physically inserted into the car.

EVSEs can be customized with added features like:

- Authentication
- Integrated payment gateways
- Software for remote monitoring.

As electric vehicle charging technology continues to advance, several standards and guidelines have become widely accepted across the industry. Chapter 8 gives a brief overview of charging infrastructure technology, standards, and terminology.

8.3.2 Different types of EVSE:

(a) Charging speeds· Charging power, which determines the time required to charge a vehicle, can vary by orders of magnitude across charge points, as shown in Table 8.3. A small household outlet may charge as slowly as 1.2 kW, while the most advanced rapid charging stations can charge at up to 350 kW. Charging infrastructure is broadly broken into three categories based on speed: Level 1, Level 2, and direct current (DC) fast charging (sometimes referred to as Level 3).
(Source: "Emerging Best Practices for Electric Vehicle Charging Infrastructure", Oct' 2017)

(b) Private Charging: Charging batteries of privately-owned cars through domestic charging points. Billing is mostly part of home domestic metering.

(c) AC "Slow" Charging: The home private chargers are generally used with 230Vl15A single phase plug which can deliver a maximum of up to about 2.5KW of power. The EVSE supplies AC current to the vehicle's on-board charger which in turn converts the AC power to DC allowing the battery to be charged.

(d) Public Charging: For charging outside the home premises, electric power needs to be billed and payment needs to be collected. The power drawn by these chargers may need to be managed from time to time.

(e) DC "Fast" Charging: DC current is sent to the electric car's battery directly via the charge port. FC chargers (usually 50 KW or more) can supply 100 or more kilometres of range per hour of charging. The fast chargers would generally be used as a top-up, rather than fully charging vehicles. These are important for cab companies and corporate users who have a fleet of electric cars.

8.4 Options for EV Charging

(a) There is an urgent need to offer flexible charging infrastructure for different vehicle segments to drive adoption of EVs. Charging infrastructure is the most crucial enabler in the entire EV value chain. The exploration of different charging models according to the local conditions shall enable faster deployment of electric vehicles in the country.

(b) EV share in all vehicles · It has been broadly projected that by the current rate of adoption of EVs, about 15% of all vehicles in the country would be EVs by the year 2020. Therefore, while assuming percentage composition of all proposed capacities in Public facilities of vehicle holding capacity, the Metropolitan and 'Tier I' cities will be assume d to have a higher percentage share of EVs, say 20% for now. The charging infrastructure prescriptions in all urban development guidelines shall, therefore, be in consonance with the said percentage.

(c) Power Load sanction to premises -While adding these Charging Infrastructures to the proposed set of building types of the Indian cities, enhanced Power Load shall have to be had for each such building type by the Power DISCOMs, commensurate to the total additional power

requirement of simultaneous operation of all the prescribed charging points in the premise. With further advancement of charging technologies and the enhanced capacity of chargers to draw more power, it is advised that the load capacity assigned to each premise should be kept with a safety factor of 1.25 with a long-term vision of 30 years.

Table 8.3:- EVs charging "modes" and 'availability'

Vehicle type	Slow Charging	Fast Charging	Public CI
2 Wheelers	Y	N	Yes/Limited
3 Wheelers	Y	N	Yes/Limited
PVs (Cars)	Y	Y	Yes
PVs (Buses)	N	Y	Yes

Table 8.4:- Charging options for EV types (by ownership)

Vehicle type	Private CI	Public CS	Predominant place of charging
2 Wheelers	SC/BS	SC	Point of residence/work
3 Wheelers	SC/BS	SC/BS	Residence/Parking stations
PVs (Cars)	SC/BS	FC	Residence/Point of work/other public places
PVs (Buses)	_	FC/BS	Bus Terminals/Depots

Note:

- *The option of Battery Swapping (BS) for privately owned 2Ws and PV(Cars) is limited to Private CI.*
- *For 3 Was the BS is proposed to be made available in PCS, for faster recharge experience only*
- *For PV (Buses), Captive Fast charging infrastructure for 100% internal use for fleets maybe adopted by privately owned Depots/Garages.*

(d) Based on the above stated EV charging technologies available and the current trend of evolving technologies of faster charging experience, the Ministry of Power has issued Guidelines and Standards for setting up Charging Infrastructure for Electric Vehicles [Ministry of Power (MoP) Guidelines dated 14.12.2018] for charging infrastructure to be installed at every Public Charging Station (PCS).'Connectivity regulations and Safety norms' shall be defined by respective authorities such as Central Electric Authority / MoP for grid access to such PCS / any other charging station infrastructure.

8.5 Charger Specifications and PCS Infrastructure

Any installed PCS shall have one or more electric kiosk boards with installation of all charger models as prescribed in the Guidelines and Standards notified by Ministry of Power, dated 14 December 2018 for "Charging Infrastructure for EVs", with other necessary arrangements as deemed necessary. Public Charging Station service providers shall be free to create charging hubs and to install additional number of kiosk chargers in addition to the minimum chargers prescribed vide the MoP Guidelines, including options for installation of additional chargers, if required.

Notes:

- *Minimum infrastructure requirements do not apply to Private Charging Points meant for self-use of individual EV owners (non-commercial basis).*
- *Captive charging infrastructure for 100% internal use for a company's own fleet will not be required to install all type of chargers and to have NSP tie ups.*

8.6 Location of PCS / FCB CS in local area / building precincts

In accordance with the Guidelines issued by the Ministry of Power (MoP), following minimum standards with regard to density of l distance between PCS in local level facilities in building premise l urban precincts shall be followed as per provisions in the ModelBBL-2016

(a) At the Local levels (within the urban area): At least 1Public Charging Station is to be available within a grid of 3Km x3Km.

(b) At the Building premise levels (for various building types):

- Private charging infrastructure (non-commercial use) for individuals.
- For all commercial modes of charging EVs, at least 1PCS, as per minimum specifications laid under MoP guidelines.
- Standalone Battery Swapping Stations may be added with the PCs.

8.6.1 Along Highways and intercity corridors:

(a) At every 25 Kms on both sides of highways roads, at least 1PCS is to be setup.

(b) At every 100 Kms on both sides of highways / roads, at least 1 Fast Charging/ FCB Charging Station as per specifications. (May be coupled with PCS)

(c) Standalone Battery Swapping Stations may be added with the PCS.

8.6.2 In Regional level Industrial SEZs I other Industrial Parks/Estates

Land for at least 1PCS is to be reserved within a grid of 10 Km x 10 Km of the designated industrial area / park /estates.

8.7 Guidelines and Standards for Charging Infrastructure of Electric Vehicles.

Private charging at residences / offices shall be permitted. DISCOMs may facilitate the same. Setting up of Public Charging Stations (PCS) shall be a de-licensed activity and any individual/entity is free to set up public charging stations, provided that, such stations meet the technical as well as performance standards and protocols laid down below as well as any further norms/standards/specifications laid down by Ministry of Power and Central Electricity Authority from time to time.

(a) Any person seeking to set up a Public Charging Station may apply for connectivity and he shall be provided connectivity on priority by the Distribution Company licensee to supply power in the area.

(b) Any Charging Station/ Chain of Charging Stations may also obtain electricity from any generation company through open access.

8.8 Public Charging Infrastructure (PCI) - Minimum Requirements

8.8.1 Every Public Charging Station (PCS) shall have the following minimum infrastructure:

(a) An exclusive transformer with all related substation equipment including safety appliance.

(b) 33/11 KV line/ cables with associated equipment including as needed for line termination/ metering etc.

(c) Appropriate civil works.

(d) Adequate space for Charging and entry/exit of vehicles.

(e) Current international standards that are prevalent and used by most vehicle manufacturers internationally are CCS and CHAdeMO. Hence, Public Charging Stations shall have, one or more electric kiosk/boards with installation of all the charger models as follows:

(f) The kiosk/board may have options for installation of additional chargers 1f required.

(g) The Public Charging Station Providers are free to create Charging Hubs and to install additional number of Kiosk/Chargers in addition to the minimum number of chargers prescribed above.

(h) Tie up with at least one online Network Service Providers (NSPs) to enable advance remote/online booking of charging slots by EV owners. Such online information to EV owners should also include information regarding location, types and numbers of chargers installed/available etc.

(i) Share charging station data with appropriate DISCOM and to maintain appropriate protocols as prescribed by such DISCOM for this purpose. CEA shall have access to this database.

(j) Appropriate public amenities.

(k) Where, in addition to the above, fast charging facility is also planned to be provided at the PCS by the PCI provider, the following additional infrastructure must be provided:

(i) Appropriate Liquid Cooled cables if High Speed Charging Facility for on board charging of Fluid Cooled Batteries (FCBs) is also planned.

(ii) Appropriate Climate Control Equipment for Fast Charging of Batteries to be used for swapping (i.e. Not on-board).

Table 8—1: Specification of Charger Type

Charger Type	Charger Connectors	Rated Voltage (V)	No. of Charging point/No. Connector guns
Fast	CCS (min 50 KW)	200-1000	1/1 CG
	CHAdeMO (min 50 KW)	200-1000	1/1 CG
	ype-2 AC (min 22 KW)	380-480	1/1 CG
Slow/Moderate	Bharat DC-001 (15 KW)	72-200	1/1 CG
	Bharat DC-001 (11 KW)	230	3/3 CG of 3.3 KW each
*In addition, any other fast/slow/moderate charger as per approved BIS standards whenever notified.			

8.8.2 Every Public Charging Station (PCS) shall be operational only after inspection and clearance as communicated by a suitable clearance certificate, by the concerned electrical inspectors/technical personnel designated specifically by the respective DISCOM for this purpose. DISCOMs may also empanel one or more third party authorized technical agencies for this purpose.

8.8.3 Electric Vehicle Service Equipment (EVSE) shall be type tested by an appropriate reputed authority.

8.8.4 The above minimum infrastructure requirements do not apply to Private Charging Points meant for self-use of individual EV owners (non-commercial basis).

8.8.5 Captive charging infrastructure for 100% internal use for a company's own/leased

fleet for its own use will not be required to install all type of chargers and to have NSP tie ups.

8.8.6 Public Charging Station can also have the option to add Standalone battery swapping facilities in addition to the above mandatory facilities, provided space/other conditions permit.

8.9 Public charging Infrastructure (PCI) for long distance EVs and/or heavy duty EVs:

8.9.1 Public charging stations for long distance EVs and/or heavy duty EVs (like trucks, Busses etc.) Shall have the following minimum requirements:

(a) At least two chargers of minimum 100 kW (with 200 -1000 V) each of different specification (CCS & CHadeMO) and with single connector gun each in addition to the minimum charging infrastructure requirements as mandated for Public Charging Stations.

(b) Appropriate Liquid Cooled Cables for high speed charging facility for on-board charging of Fluid Cooled Batteries (currently available in some long range EVs).

(c) In addition to 8.8.1 (i) and (ii) above, the Fast Charging Stations (FCS) for Long Distance EVs and/or Heavy Duty EVs may also have the option of swap ping facilities for batteries for meeting the charging requirements as per para 8.7 and para 8.8(i) & Above. It is notable that Fluid Cooled Batteries (FCBs) are generally necessary for Fast Charging/Long Distance use of EVs and/or for Heavy Duty Vehicles like buses/trucks etc. FCBs will have higher charging rate and longer life.

8.9.2 Such Fast Charging Stations (FCS)which are meant only for 100% in house/captive utilization, for example buses of a company, would be free to decide the charging specifications as per requirement for its in- house company EVs.

8.10 Location of Public Charging Stations:

8.10.1 In case of Public Charging Stations, the following minimum requirements are laid down with regard to density/distance between two charging points:

(a) At least one Charging Station should be available in a grid of 3 Km X 3 Km. Further, one Charging Station be set up at every 25 Km on both sides of highways/roads.

(b) For long range EVs (like long range SUVs) and heavy duty EVs like buses/trucks etc., there should be at least one Fast Charging Station with Charging Infrastructure Specifications as per para 8.8.l at every 100 Kms, one on each side of the highways/road located preferably within/alongside the stations. Within cities, such charging facilities for heavy duty EVs shall be located within Transport Nagars, bus depots. Moreover, swapping facilities are also not mandatory within cities for Buses/trucks.

8.10.2 Additional public charging stations shall be set up in any area only after meeting the above requirements.

8.10.3 The above density/distance requirements shall be used by the concerned state/UT Governments/their Agencies for the twin purposes of arrangement of land in any manner for public charging stations as well as for priority in installation of

distribution network including transformers/feeders etc. This shall be done in all cases including where no central/state subsidy is provided.

8.10.4 The appropriate Governments (Central/State/UTs) may also give priority to existing retail outlets (ROs) of Oil Marketing Companies (OMCs) for installation of Public EV Charging Stations (in compliance with safety norms including 'firewalls' etc.) to meet the requirements as laid above. Further, within such ROs, Company Owned and Company Operated (COCO) ROs may be given higher preference.

8.10.5 Any deviation from above norms shall be admissible only after specific approval of State Nodal Agency in consultation with the Central Nodal Agency**.**

8.11 Database of Public EV Charging Stations:

Central Electricity Authority (CEA) shall create and maintain a national online database of all the Public Charging Stations through DISCOMs. Appropriate protocols shall be notified by DISCOMs for this purpose which shall be mandatorily complied by the PCS/BCS. This database shall have restricted access as finalized between CEA and Ministry of Power.

8.12 Tariff for supply of electricity to EV Public Charging Stations:

8.12.1 The tariff for supply of electricity to EV Public Charging Station shall be determined by the appropriate commission, provided however that the tariff shall not be more than the average cost of supply plus 15 (fifteen) percent.

8.12.2 The tariff applicable for domestic consumption shall be applicable for domestic charging.

8.13 Service charges at PCS/BCS:

8.13.1 Charging of EVs is a service as already clarified by Ministry of Power vide letter No. 23/08/2018-R&R dated 13.04.2018.

8.13.2 The State Nodal Agency shall fix the ceiling of the Service Charges to be charged by the Public Charging Stations.

8.14 Priority for Rollout of EV Public Charging Infrastructure:

After extensive consultations with State Governments and different Department/ Agencies of Central Government, phasing as follows are laid down as national priority for rollout of EV Public Charging Infrastructure:

8.14.1 Phase l (1-3Years)

All Mega Cities with population of 4 million plus as per census 2011, all existing expressways connected to these Mega Cities &important Highways connected with each of these Mega Cities shall be taken up for coverage.

8.14.2 Phase II (3-5 Years)

Big cities like State Capitals, UT headquarters shall be covered for distributed and demonstrative effect. Further, important highways connected with each of these Mega Cities shall be taken up for coverage.

The above priorities for phasing of rollout shall be kept in mind by all concerned, including, different agencies of Central/State Governments while framing of further policies/guidelines for Public

Charging Infrastructure of EV s, including for declaring further incentives/subsidies for such infrastructure and for such other purposes.

8.15 Implementation Mechanism for Rollout:

8.15.1 Ministry of Power shall designate a Central Nodal Agency for the rollout. All relevant agencies including Central electricity Authority (CEA) shall provide necessary support to this nodal agency.

8.15.2 Every State Government/UT shall nominate a Nodal Agency for that State/UT for setting up charging infrastructure. The State DISCOM shall generally be the Nodal Agency for such purposes. However, State Government shall be free to select a Central/State Public Sector Undertaking (PSU) including Urban Local Bodies (ULBs), Urban/Area Development Authorities etc. As its Nodal Agency.

8.16 Selection of Implementation Agency for Rollout:

8.16.1 The Central Nodal Agency shall finalize the cities and expressways/highways to be finally taken up from the above phasing, in consultation with the respective State Governments.

8.16.2 An Implementation Agency shall be selected by the respective State Nodal Agency and shall be entrusted with responsibility of installation, operation and maintenance of PCS/FCS/BCS/BSF for designated period as per params laid down in this document and as entrusted by the concerned Nodal Agency. The Implementation Agency can be an Aggregator as mutually decided between Central and State Nodal Agencies. However, they can also decide to choose different PCS/FCS providers for bundled packages or for individual locations as mutually decided. Further, whenever bundled packages are carved for bidding, such packages shall necessarily include at least one identified expressway/highway or part cohesive regional package; the selected identified cities may be divided into one or more parts as necessary for such purposes.

8.16.3 Where Implementing Agency is selected by bidding, all bidding shall be conducted by the State Nodal Agency.

8.16.4 There shall be an upper cap on the Service Charges declared by the State Nodal Agency as per para 8.12.2 above. Subsidy, if admissible from Central/State governments, shall be suitably factored in such calculations of Upper Cap/Bid Variable.

(Source: Model Building Byelaws 2016, Town and Country Planning Organisation, Ministry of Urban Development, now Ministry of Housing and Urban Affairs (MoHUA))

CHAPTER 9: PROVISION FOR HIGH RISE AND TALL BUILDINGS

9.1 High Rise Building

Buildings higher than 15m of height. without stilts and above 17.5m of height. with stilts shall be considered as high-rise building.

Note: These provisions shall be in addition to the Chapter 2 for plan sanction procedure, Chapter 4 for procedure during construction, Chapter 5 for Zoning regulations and Chapter 6 for Space requirement for different parts of Building.

9.1.1 Plot Area

Plots to be used for high rise development should be located in an approved Layout plan, Comprehensive plans or subdivision plans as prepared and approved by competent authorities/ as per policy of the Government of India / State Governments.

9.1.2 Means of access

The entrance gate shall fold back against the compound wall of the premises, thus leaving the exterior access way within the plot free for movement of fire service vehicles. If archway is provided over the main entrance the height. of the archway shall not be at a height. less than 5m.

9.2 Building components

9.4.1 Doorways

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

(b) No exit doorway shall be less than 1m in width. Doorways shall be not less than 2 m in height. Doorways for bathrooms, water closet, stores etc. shall be not less than 0.75mwide.

(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 0.9m, 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 stairway at each doorway, level of landing shall be the same as that of the floor which it serves.

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

(f) Mirrors shall not be placed in exit ways or exit doors to avoid confusion regarding the direction of exit.

9.4.2 Revolving Doors

Revolving door shall not be provided as a means of fire exit.

9.4.3 Stairways

(a) A staircase shall not be arranged round a lift shaft.

(b) The staircase shall be ventilated to the atmosphere at each landing and a vent at the top; the vent openings shall be of 0.5 sq.m in the external wall and the top. If the staircase cannot be ventilated, because of location or other reasons, a positive pressure 50 Pa shall be maintained

inside. The mechanism for pressurizing the staircase shall operate automatically with the fire alarm. The roof of the shaft shall be 1 m above the surrounding roof. Glazing or glass bricks if used in staircase, shall have fire resistance rating of minimum 2hour.

(c) The minimum width of staircase shall be as table given below:

Table 9—1 : Minimum width of staircase for different types of buildings

Types of Building	Width
Residential buildings (dwellings)	1.0m
Residential hotel buildings	1.5m
Assembly buildings like auditorium, theatres and cinemas	2.0m
Educational buildings up to 30 m in height	1.5m
Institutional buildings like hospitals	2.0m
All other buildings	1.5m

(d) The minimum width of treads without nosing shall be 0.25m for staircase for residential buildings. In the case of other buildings, the minimum tread shall be 0.3m. The treads shall be constructed and maintained in a manner to prevent slipping. The maximum height of riser shall be 0.19m in the case of residential buildings and 0.15m in the case of other buildings and shall be limited to 15 risers per flight.

(e) Handrails shall be provided with a minimum height of 0.9m from the centre of the tread.

(f) The minimum headroom in a passage under the lading of a staircase and under the staircase shall be2.2m.

(g) Access to main staircase shall be gained through adequate fire resistance rating (for various types of construction for structural and non-structural members shall be as given in Table 1 of Part IV of the NBC 2016 and for building elements/components such as walls, columns, beams and floors shall have the requisite fire resistance rating in accordance with the accepted standards at Tables 2 to 18 of Part IV of the NBC, 2016). Automatic closing doors placed in the enclosing walls of the staircases. It shall be a swing type door opening in the direction of the escape.

(h) No living space, store or other fire risk shall open directly into the staircase or staircases.

(i) External exit door of staircase enclosure at ground level shall open directly to the open spaces or can be reached without passing through any door other than a door provided to form a draught lobby.

(j) The exit sign with arrow indicating the way to the escape route shall be provided at a height of 1.5m from the floor level on the wall and shall be illuminated by electric light connected to corridor circuits. All exit way marking signs 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 equipment's. Further all landings of floor shall have floor indication boards indicating the number of floors. The floor indication board shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of size not less than 0.5x 0.5m and it shall be prominently on the wall facing the staircase.

(k) In case of single staircase, it shall terminate at the ground floor level and the access to the basement shall be by a separate staircase. However, the second staircase may lead to basement levels provided the same is separated at ground level by either a ventilated lobby with discharge

points at two different ends or through enclosures with fire resistance rating door (Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016) or through a fire protected corridor.

9.4.4 Lifts

General requirements of lifts shall be as follows:

(a) All the floors shall be accessible for 24 hours by the lifts. The lifts provided in the buildings shall not be considered as a means of escape in case of emergency. In a dual line arrangement (lifts opposite to each other) the lobby may be between 1.5 times to 2.5 times the depth of one car. For in-line (single line) arrangements the lobby may be typically half of the above recommendations.

(b) Grounding switch, at ground floor level, to enable the fire service to ground the lift shall also be provided.

(c) The lift machine room shall be separate and no other machinery shall be installed therein.

(d) Walls of lift enclosures and lift lobby shall have fire rating of 2 hour; ((Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016) lifts shall have a vent at the top of area not less than 0.2 sq.m.

(e) Lift car door shall have a fire resistance rating of 1hour.

(f) Lift lobby doors in lift enclosures shall have fire resistance as per Section(Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016)

(g) Collapsible gates shall not be permitted for lifts and shall have solid doors with fire resistance of at least 1 hour.

(h) If the lift shaft and lobby is in the core of the building, a positive pressure between 25 and 30 Pa shall be maintained in the lobby and a positive pressure of 50 Pa shall be maintained in the lift shaft. The mechanism for pressurization shall act automatically with the fire alarm; it shall be possible to operate this mechanically also.

(i) Lifts if communicating with the basement, the lift lobby of the basements shall be pressurized with self-closing door with fire resistance rating (Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016). Telephone or other communication facilities shall be provided in lift cars and to be connected to fire control room for the building.

(j) Exit from the lift lobby, if located in the core of the building, shall be through a self-closing fire door of half an hour fire resistance.

(k) Suitable arrangements such as providing slope in the floor of lift lobby shall be made to prevent water used during firefighting, etc., at any landing from entering the lift shafts.

(l) A sign shall be posted and maintained on every floor at or near the lift indicating that in case of fire, occupants shall use the stairs unless instructed otherwise. The sign shall also contain a plan for each floor showing the locations of the stairways. Alternate source of power supply shall be provided for all the lifts through a manually operated changeover switch.

(m) For Pressurization Specifications of various building components refer NBC, 2016 Chapter 4 Fire and Life Safety Clause 4.10 Pressurization of Staircases (Protected Escape Routes)

9.4.5 Basements

(a) Basement shall be permitted within the building envelope only.

(b) Each basement shall be separately ventilated. Vents with cross-sectional area (aggregate) not less than 2.5 percent of the floor area spread evenly round the perimeter of the basement shall be provided in the form of grills or breakable stall board lights or pavement lights or by way of shafts. Alternatively, a system of air inlets shall be provided at basement floor level and smoke outlets at basement ceiling level. Inlets and extracts may be terminated at ground level with stall board or pavement lights as before, but ducts to convey fresh air to the basement floor level have to be laid. Stall board and pavement lights should be in positions easily accessible to the fire brigade and clearly marked 'SMOKE OUTLET' or 'AIR INLET' with an indication of area served at or near the opening.

(c) The staircase of basements shall be of enclosed type having fire resistance rating (Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016). The staircase shall be situated at the periphery of the basement to be entered at ground level only, from outside open air. The staircase shall communicate with basement through a lobby with self-closing doors with fire resistance rating as per relevant NBC code mentioned above.

(d) For travel distance Table 9—2given below shall be followed. If travel distance exceeds that given in the table below, additional staircases shall be provided.

Table 9—2 : Travel Distance for Occupancy and Type of Construction

Group of Occupancy	Maximum Travel Distance Construction (m)	
	Type 1 &2	Type 3 & 4
Residential (A)	30.0	22.5
Educational (B)	30.0	22.5
Institutional (C)	30.0	22.5
Assembly (D)	30.0	30.0
Business (E)	30.0	30.0
Mercantile (F)	30.0	30.0
Industrial (G)	45.0	Construction type 3 and 4 not permitted.
Storage (H)	30.0	Construction type 3 and 4 not permitted.
Hazardous (J)	22.5	Construction type 3 and 4 not permitted.

Notes:

- *For fully sprinkled building, the travel distance may be increased by 50% of the values specified above*
- *Ramps shall be counted as one of the means of escape wherever permitted in National Building Code2016*

(e) In multi-story basements, intake ducts may serve all basement levels, but each basement level and basement compartment shall have separate smoke outlet duct or ducts. Ducts so provided shall have the same fire resistance rating as the compartment itself. Fire rating may be taken as the required smoke extraction time for smoke extraction ducts.

(f) Mechanical extractors for smoke venting system from lower basement levels shall also be provided. The system shall be of such design as to operate on actuation of heat / smoke sensitive detectors or sprinklers, if installed, and shall have a considerably superior performance compared to the standard units. It shall also have an arrangement to start it manually.

(g) Mechanical extractors shall have an internal locking arrangement, so that extractors shall continue to operate and supply fans for HVAC shall stop automatically with the actuation of fire detectors.

(h) Mechanical extractors shall be designated to permit 30 air changes per hour in case of fire or distress call. However, for normal operation, air changes schedule shall be as given in Part 8, Building Services, Section 3, Air-conditioning, Heating and Mechanical Ventilation of National Building Code, 2016.

(i) Mechanical extractors shall have an alternative source of supply.

(j) Ventilating ducts shall be integrated with the structure and made out of brick masonry or reinforced cement concrete and when this duct crosses the transformer area or electrical switchboard, fire dampers shall be provided.

(k) Use of basements for kitchens working on gas fuel shall not be permitted, unless air conditioned. The basement shall not be permitted below the ward block of a hospital/nursing home unless it is fully sprinkled. Building services such as electrical sub-stations, boiler rooms in basements shall comply with the provisions of the Indian Electricity Act / Rules. Boiler room shall be provided at the first basement along the periphery wall with fire resistance rating Table 1 of Part IV of the NBC 2016 and Tables 2 to 18 of Part IV of the NBC, 2016) or shall be separated with the blast wall.

(l) If cut-outs are provided from basements to the upper floors or to the atmospheres, all sides cut-out openings in the basements shall be protected by sprinkler head at close spacing so as to form a water curtain in the event of afire.

(m) It is essential to make provisions for drainage of any such water on all floors to prevent or minimize water damage of the contents. The drain pipes should be provided on the external wall for drainage of water from all floors. On large area floors, several such pipes may be necessary which should be spaced 30 m apart. Care shall be taken to ensure that the construction of the drain pipe does not allow spread fire / smoke from floor to floor.

9.4.6 Compartmentation

(a) The building shall be suitably compartmentalized so that fire/smoke remains confined to the area where fire incident has occurred and does not spread to the remaining part of the building.

(b) Compartmentation and Pressurization method shall be adopted (as per clause 4.10 of Part 4 of NBC 2016) to protect escape routes against ingress of smoke, or toxic gases into the escape routes will be prevented. Pressurization shall be adopted for high rise buildings and building having mixed occupancy/multiplexes having covered area more than 500 m^2.

9.4.7 Corridors

(a) Exit corridors and passageways shall be of width not less than the aggregate required width of exit doorways leading from them in the direction of travel to the exterior.

(b) The minimum width of a corridor in a residential building shall be 1.0 m for single loaded and 1.8 m for double loaded and in all other buildings shall be1.5m.

(c) Where stairways discharge through corridors and passageways, the height of corridors and passageways shall be not less than 2.4m.

(d) All means of exit including staircases lifts lobbies and corridors shall be ventilated.

9.4.8 Glass Façade/ Service Ducts/Shafts/ Refuge Area/ Vents

(a) An Opening to the glass façade of min. width 1.5 m and height 1.5m shall be provided at every floor at a level of 1.2 m from the flooring facing compulsory open space as well as on road side. Construction that complies with the fire rating of the horizontal segregation and has any gap packed with a non-combustible material to withstand thermal expansion and structural movement of the walling without the loss of seal against fire and smoke.

(b) Mechanism of Opening: The openable glass panel shall be either left or right shall have manual opening mechanism from inside as well as outside. Such openable panels shall be marked conspicuously so as to easily identify the openable panel from outside.

(c) Fire seal to be provided at every floor level between the external glazing and building structure.

(d) The glazing used for the façade shall be of toughened (tempered) safety glass as per I.S.2553.

(e) To avoid fire propagation vertically from one floor to another floor, a continuous glass I must be separated internally by a smoke/ fire seal which is of non-combustible material having a fire resistance rating of not less than 2hours.

(f) Service ducts and shafts shall be enclosed by walls and doors with fire resistance rating (clause **Error! Reference source not found.** of **Error! Reference source not found.**). All such du cts/shafts shall be properly sealed and stopped fire ingress at all floor levels.

(g) A vent opening at the top of the service shaft shall be provided having an area between one-fourth and one-half of the area of the shaft.

(h) The openable vent of minimum 2.5% of the floor area shall be provided. The openable vent can be pop out type or bottom hinged provided with fusible link opening mechanism and shall also be integrated with automatic Smoke Detection System

(i) Alternate vertical glass panels of the façade shall be openable type with the mechanism mentioned above in order to ventilate the smoke.

(j) Refuge areas covered with the glass façade shall have all the panels fully openable (either left or right. hinged) both from inside as well as outside.

(k) Glass quality and Practice of use of Glass in buildings shall have to be in conformity with the BIS codes as given in Table 9—3 below:

Table 9—3: Glass quality and Use of glass in buildings

IS Code	Specifications
2553 (Part 1):1990	Specification for safety glass: Part 1 General purpose (third revision)
2835:1987	Specification for flat transparent sheet glass (third revision)
438:1994	Specification for silvered glass mirrors for general purposes (second revision)
5437:1994	Specification for figured rolled and wired glass (first revision).
14900:2000	Specification for transparent float glass.
16231 Part 1	General methodology for selection
16231 Part 2	Energy and Light.
16231 Part 3	Fire and Loading
16231 Part 4	Safety related to Human Impact

9.3 Building Services

9.3.1 Staircase and Corridor Lighting

(a) The staircase and corridor lighting shall be on separate service and shall be independently connected so as it could be operated by one switch installation on the ground floor, easily accessible to firefighting staff at any time irrespective of the position of the individuate control of the light points, if any.

(b) Staircase and corridor lighting shall also be connected to alternate supply from parallel high-tension supply or to the supply from the stand-by generator.

(c) Emergency lights shall be provided in staircase and corridor/ passageway, horizontal exits, refuge area; and all wires and other accessories used for emergency light shall have fire retardant property.

9.3.2 Electrical Services

(a) The electric distribution cables/wiring shall be laid in separate duct the duct shall be sealed at every floor with non-combustible materials having the same fire resistance as that of the duct. Low and medium voltage wiring running in shaft and in false ceiling shall run in separate conduits.

(a) Water mains, telephone cables, intercom cables, gas pipes or any other service line shall not be laid in the duct for electric cables. Use of bus ducts/solid rising mains instead of cables is preferred.

(b) The provision of dedicated telecommunication ducts for all new building proposals is mandatory for conveyance of telecommunication and other data cables.

(c) Separate circuits for water pumps lifts, staircases and corridor lighting and blowers for pressurizing system shall be provided directly from the main switchgear panel (for detailed specifications refer NBC 2016, chapter 4 Fire and Life Safety).

9.3.3 Alternate Source of Electric Supply

A stand-by electric generator shall be installed to supply power to staircase and corridor lighting circuits, fire lifts, the stand-by fire pumps, pressurization fans and blowers, smoke extraction and damper system in case of failure of normal electric supply. The generator shall be capable of taking starting current of all the machines.

9.3.4 Air-conditioning

Air-conditioning shall conform to the following:

(a) Escape routes like staircases, common corridors, lift lobbies, etc. shall not be used as return air passage.

(b) The ducting shall be constructed of sufficient gauge metal in accordance with good practice.

(c) Wherever the ducts pass through fire walls or floors, the opening around the ducts shall be sealed with materials having fire resistance rating of the compartment.

(d) Where duct crosses a compartment which is fire rated, the ducts shall be fire rated for same fire rating. Further depending on services passing around the duct work, which may get affected in case of fire temperature rising, the ducts shall be insulated.

(e) Metallic ducts shall be used even for the return air instead of space above the false ceiling.

(f) Where plenum is used for return air passage, ceiling and its fixtures shall be of non-combustible material.

(g) The materials used for insulating the duct system (inside or outside) shall be of non-combustible material; glass wool shall not be wrapped or secured by any material of combustible nature.

(h) Air ducts serving main floor areas, corridors, etc. shall not pass through the staircase enclosure.

(i) The air-handling units shall be separate for each floor and air ducts for every floor shall be separated and in no way inter-connected with the ducting of any other floor.

(j) If the air-handling unit serves more than one floor, the recommendations given above shall be compiled with in addition to the conditions given below:

(k) Proper arrangements by way of automatic fire dampers working on smoke detector / or fusible link for isolating all ducting at every floor from the main riser shall be made.

(i) When the automatic fire alarm operates, the respective air-handling units of the air-conditioning system shall automatically be switched off.

(ii) The vertical shaft for treated fresh air shall be of masonry construction.

(iii) The air filters of the air-handling units shall be of non-combustible materials or fire rated.

(iv) The air-handling unit room shall not be used for storage of any combustible materials.

(v) Inspection panels shall be provided in the main trunking to facilitate the cleaning of ducts of accumulated dust and to obtain access for maintenance of fire dampers.

(vi) No combustible material shall be fixed nearer than 150 mm to any duct unless such duct is properly enclosed and protected with non-combustible material (glass wool or spyglass with neoprene facing enclosed and wrapped with aluminium sheeting) at least 3.2 mm thick and which would not readily conduct heat.

9.3.5 Transformers

(a) If transformers are housed in the building below the ground level it shall be necessarily in the first basement in separate fire resistance room of 4 hours rating. Transformer shall be dry type and shall be kept in an enclosure with walls, doors and cut-outs having fire resistance rating of 4 hour. The room shall necessarily be at the periphery of the basement having separate and direct access from open area at ground floor through a fire escape staircase. The entrance to the room shall be provided with a steel door of 2 hours fire rating. A curb of a suitable height. shall be provided at the entrance in order to prevent the flow of oil from ruptured, transformer into other parts of the basement. The switchgears shall be housed in a separate room separated from the transformer bays by a fire-resisting wall with fire resistance not less than 4 hours.

(b) The transformer shall be protected by an automatic foam sprinkler system. When housed at ground floor level it/they shall be cut-off from the other portion of premises by Fire Resisting Walls of 4 hours rating.

(c) A tank of RCC construction of adequate capacity shall be provided at lower basement level, to collect the oil from the catch pit in case of emergency. The pipe connecting the catch-pit to the tank shall be of non-combustible construction and shall be provided with a flame-arrester.

(d) The electric sub-station shall be located in a separate building in accordance to I.E. Rules 68(I) and 64(I) (a).

(e) If this is not possible due to site conditions, the sub-station shall be located on the ground floor. As far as possible sub-station shall not be installed in a basement, for such situations special provisions like mechanical ventilation, wherever required, cable ducting, cable trays, top/bottom entry of HV/LV cable, hooks on Transformer(s) & HV panels, adequate fire detection and firefighting arrangement, adequate drainage, effective measures to prevent flooding etc. shall be provided. Adequate precautions shall also be taken for water proofing to prevent seepage of water. A ramp shall also be provided with a slope, not steeper than 1 in 7, for easy movement of equipment to and from sub-station.

(f) Fire regulations – The installations shall be carried out in conformity with the local regulations and rules there under wherever they are in force. At other places NBC, 2016 guidelines shall be followed.

9.3.6 Gas supply

(a) Town Gas / L.P. Gas Supply Pipes – Where gas pipes are run in buildings, the same shall be run in separate shafts exclusively for this purpose and these shall be on external walls, away from the staircases. There shall be no interconnection of this shaft with the rest of the floors.

(b) LPG distribution pipes shall always be below the false ceiling. The length of these pipes shall be as short as possible. In the case of kitchen cooking range area, apart from providing hood, covering the entire cooking range, the exhaust system should be designed to take care of 30 CUM per minute per sq.m. of hood protected area. It should have grease filters using metallic grill to trip oil vapours escaping into the fume hood.

Note: For detailed information on gas pipe installations, reference may be made to Para.9 'Plumbing Services, Section 3 Gas Supply', of NBC 2016

(c) For large/commercial kitchens all wiring in fume hoods shall be of fiberglass insulation. Thermal detectors shall be installed into fume hoods of large kitchens for hotels, hospitals and similar areas located in high rise buildings. Arrangements shall be made for automatic tripping of the exhaust fan in case of fire.

(d) If LPG is used, the same shall be shut off. The voltage shall be of 24 V or 100 V DC operated with the external rectifier. The valve shall be of the hand re-set type and shall be located in an area segregated from cooking ranges. Valves shall be easily accessible. The hood shall have manual facility for steam or carbon dioxide gas injection, depending on duty condition; and Gas meters shall be housed in a suitably constructed metal cupboard located in a well-ventilated space, keeping in view the fact that LPG is heavier than air and town gas is ligHt.er than air.

9.3.7 Boiler Room

Further, the following additional aspects may be taken into account in the location of Boiler/Boiler Room:

(a) The boiler shall not be allowed in sub-basement but be allowed in the first basements away from the escape routes.

(b) The boilers shall be installed in a fire resisting room of 4 hours fire resistance rating, and this room shall be situated on the periphery of the basement. Catch pit shall be provided at the low level. Entry to this room may be provided with a composite door of two-hour fire resistance.

(c) The boiler room shall be provided with fresh air inlets and smoke exhausts directly to the atmosphere.

(d) Foam inlets shall be provided on the external walls of the building at the ground floor level to enable the fire services to use foam in case of fire.

(e) The furnace oil tank for the boiler, if located in the adjoining room shall be separated by fire resisting wall of 4-hour rating. Entry to this room shall be provided with a composite door of 2-hour fire resistance. A curb of suitable height shall be provided at the entrance in order to prevent the flow of oil into the boiler room in case of tank rupture.

9.3.8 Helipad

Buildings above 200 m in height, helipad may be provided.

9.3.9 Disaster Management (Fire Safety)

Refer Part 4 of NBC 2016 for minimum requirements for firefighting installations.

9.3.10 Structural Safety

As per provisions made for Structural Safety in Chapter 6 of MBBL 2016 and from Section 12.2.5.1 of NBC 2016 or its latest version.

The application for seeking building permit shall be accompanied with a report of Architect/Structural Engineer certifying that the proposed structure has been designed structurally keeping in view the safety measures against earthquakes as indicated in the following Bureau of Indian Standards (B.I.S).

List of Codes Published by CED 39 (Earthquake Code Committee) of Bureau of Indian Standards

Sr. No	Code No	Year of Revised Publication	Year of Reaffirmation	Title
1	IS 13935	2009	2014	Seismic Evaluation, Repair and Strengthening of Masonry Buildings- Guidelines
2	IS 1893: Part 1	2016		Criteria for Earthquake Resistant Design of Structure - Part 1 : General Provisions and Buildings
3	IS 4326	2013		Earthquake resistant design and construction of buildings- Code of practice
4	IS 13920	2016		Ductile Design and Detailing of Reinforced Concrete Structures Subjected to Seismic Force - Code of Practice (First Revision)
5	IS 13827	1993	2013	Improving earthquake resistance of earthen buildings - Guidelines
6	IS 13828	1993	2013	Improving earthquake resistance of low strength masonry buildings - Guidelines

7	IS 1893: Part 2	2014		Criteria for Earthquake Resistant Design of Structures- Part 2 Liquid Retaining Tanks
8	IS 1893: Part 3	2014		Criteria for Earthquake Resistant Design of Structures Part 3 Bridges and Retaining Walls
9	IS 1893: Part 4	2015		Criteria for Earthquake Resistant Design of Structures Part 4 Industrial Structures Including Stack - Like Structures (First Revision)
10	IS 4967	1968	2015	Recommendations for Seismic instrumentation for river valley projects
11	IS 4991	1968	2013	Criteria for blast resistant design of structures for explosions above ground
12	IS 6922	1973	2013	Criteria for safety and design of structures subject to underground blasts

9.3.11 Sustainable Environment and Buildings

Refer CHAPTER 11: of this document.

9.3.12 General

(a) Architectural elements such as louvers, pergolas, other sunshine materials should be free from FAR.

(b) Any architectural roof top structures would also be permitted out of FAR if not used for habitable or commercial purposes.

(c) Building elements such as sky bridges and landscape terraces which are meant for community purposes only shall be permitted free of FAR.

(d) Services can be permitted on roofs with adequate screening for the same.

(e) Service floors shall not be counted in FAR. Service area on habitable floors may be considered free from FAR.

(f) Atrium/ Atria at any floor will be counted only once in the FAR. Atrium may be enclosed by light. roofing or R.C.C as per NBC 2016

(g) Scissor staircase would be permitted provided all travel distance and fire norms are adhered to.

(h) Stilts in high-rise will not be restricted to height. of 2.4 m as long as it is used for parking.

(i) Multilevel car parking with car lifts would be permitted with adequate fire safety.

9.4 Tall Building

Building with height. more than 50 m shall be considered as Tall buildings. All the provisions and norms applicable for High Rise Building shall be also applicable for Tall buildings. In addition to that, Tall Buildings shall be allowed only on the roads having minimum ROW 60 m with standard service lanes.

CHAPTER 10: RAINWATER HARVESTING

This chapter gives the mandatory requirements of water conservation. The methods and techniques shall be adopted from NBC, 2016.

10.1 The Rainwater Harvesting (RWH) system

The harvesting of rainwater simply involves the collection of water from surfaces on which rain falls, and subsequently storing this water for use. The rainwater collected can be stored for direct use or can be recharged into the underground aquifers. In scientific terms water harvesting (broadly) refers to collection and storage of rainwater from the rooftops. This also restricts evaporation and seepage into building foundations. All buildings having a plot size of 100 sq.m. Or more, while submitting the building plans for sanction, shall mandatorily include the complete proposal of rainwater harvesting.

A rainwater harvesting system consists of:

(a) Roof catchment
(b) Gutters
(c) Down pipes
(d) Rainwater/ Storm water drains
(e) Filter Chamber
(f) Storage Tanks/ Pits/ Sumps.
(g) Ground Water recharge structures like pit, trench, tube well or combination of above structure.

Rainwater Harvesting is a way to capture the rain runoff, store that water above ground or charge the underground aquifers and use it later. This happens naturally in open rural areas. But in congested, over-paved metropolitan cities, there is a need to devise methods to capture the rainwater. The rainwater that is incident on the surface/ rooftop is guided to bore wells or pits or new/old/ abandoned wells through small diameter pipes to recharge the underground water which can be used later whenever required.

Rainwater can be harvested to the extent of 55,000 litres per 100sq. m area per Year from rooftops.

10.2 Rainwater harvesting techniques:

There are two main techniques of rainwater harvestings.

(a) Storage of rainwater on surface for future use.
(b) Recharge to ground water.

The technical aspects and options of Rainwater harvesting from which the city authorities can assess and choose to adopt (Refer **Appendix** for the technical aspects and options as suggested by Model Building Bye -Laws 2016).

10.3 Harvesting provisions in various Building categories:

All buildings in a city contribute to the rainwater runoff during the monsoon and hence such runoff can be harvested for water reuse/recharge. The indicative provisions of rainwater harvesting in various buildings types are:

Table 10—1: Provisions for Rainwater harvesting by building types

Category Use	Area of Plot (sq.m.)	Provision to be made	Other conditions
Residential Plotted Houses			

Category Use	Area of Plot (sq.m.)	Provision to be made	Other conditions
New Proposals	100and above	Constructionof Rain water Harvesting Structure	Shall have emphasis on both storage and reuse.
Group Housing			
New Proposals	All plot sizes	(i) Construction of Rainwater Harvesting Structure. (ii) Concrete paving to be avoided and permeable materials are to be used for all open parking spaces.	(i) Should indicate the system of Strom Water Drainage, Rainwater Harvesting Structure and Recharging Well
Public and Semi-public Buildings			
All Proposals	All Plot Sizes	(i) Shallhave Rain water Harvesting Structure and storage (ii) Shall have Recharge pits.	Shall have emphasis on both storage and reuse.
Commercial Mixed Use			
All Proposals	All Plot Sizes	Construction of Rainwater Harvesting Structure. Soft landscape provision and open spaces with percolation pits. Common treatment plant to be made part of the integrated development, funded by sale of commercial space.	Should indicate the system of Strom Water Drainage, Rainwater Harvesting Structure and Recharging Well Shall have emphasis on both storage and reuse.
Industrial			
All Proposals	All Plot Sizes	Construction of Rainwater Harvesting Structure. Soft landscape provision and open spaces with percolation pits. Use of abandoned bore wells for recharging of ground water. iii Common treatment plant to be made part of the integrated development, funded by sale of commercial space.	Should indicate the system of Strom Water Drainage, Rainwater Harvesting Structure and Recharging Well Provision should be made not to inject contaminate water into recharge structures in industrial areas and care is to be taken to keep such structures away from sewer lines, septic tanks, soak pits, landfill and other sources of contamination.
Other Uses			
Other Proposals	All Plot Sizes	Similar as above	Similar as above

10.4 Rainwater Harvesting Provisions for Open spaces in cities

The open spaces/recreational land use generally constitute regional parks, district parks, playground and stadium, sports complex, monument zones, public parking, Plaza and other public open space. This may be as high as 30% to 50% of the city's geographic area. All such public open spaces above the size of 500 sq.m. shall have arrangements for complete utilization and capture of storm water with scientific rainwater harvesting arrangements.

Following ideas may also be included:

(a) Well cum Channel cum Percolation pits.

(b) Use of abandoned bore wells for recharging of ground water

(c) Artificial or natural Storage of storm water runoff from larger sites.

10.5 Ground Water Recharge

Recharging of ground water should be made mandatory not only for residential buildings but for all types of buildings, including Group Housing Societies having a plot area more than 500 Sq.m. and above.

The Ground Water Recharge should also be mandatory for open spaces like parks, parking, plazas and playgrounds. The harvesting and recharge structures could be constructed by the Authority with the involvement of community-based organizations like Resident Welfare Associations.

10.6 Enforcement and Monitoring

(a) The Authority shall constitute a Rainwater Harvesting Cell which will be responsible for enforcement and monitoring of the provisions of Rainwater Harvesting. The cell shall employ qualified persons who are well versed with the interpretation of Building Byelaws and responsible for enforcement as well as monitoring the functioning of the Rainwater Harvesting System.

(b) The Authority shall include inspection of Rainwater Harvesting Structures before issuing Completion Certificates or NOCs for service connections to the property.

(c) Set an example in the city by ensuring that Rainwater is harvested in the properties /assets owned by them including public buildings, markets, community enters, parking spaces, roads, and parks etc.

(d) The Authority shall also establish a mechanism to monitor 100% of RWH provisions in all the buildings above 1000 sq.m. with annual physical verification, while buildings less than 1000 sq.m. can be monitored on the basis of 10% random survey by BPIA.

(e) With regard to open public spaces viz., Parks, playgrounds etc. the implementation of provision rainwater harvesting may be done with the help of Residents Welfare Associations, Community Building Organization and Non-Governmental Organizations.

(f) The Authority shall ensure earmarking budgetary provision for the creation and maintenance of rainwater harvesting structures in public spaces owned and maintained by them, like parking spaces, parks, plazas etc.

(g) The practice of incentives and penalties to promote rainwater harvesting shall be formulated by the local authority based on best practices. Authority shall design its own incentive and penalty systems, considering the water level and scarcity.

Note: For Methods of Rainwater Harvesting etc refer the NBC-2016 or its latest version.

CHAPTER 11: GREEN BUILDING AND SUSTAINABILITY

11.1 Provisions

Modern buildings consume about 25 to 30 % of total energy, and up to 30 % of fresh potable water, and generate approximately 40 % of total waste. Sustainable buildings have demonstrated reduction in energy and water consumption to less than half of the present consumption in conventional buildings, and complete elimination of the construction and operational waste through recycling.

Thus, all buildings on various plot sizes above 100 sq.m. Shall comply with the green norms and conform to the requirements mandatory for sanction as mentioned in this chapter.

These provisions are not specific to any rating system and are not intended to provide a single metric indication of overall building performance. These provisions allow the practitioners to easily exercise their engineering judgment in holistically and objectively applying the underlying principles of sustainability to a development or building facility, considering its functionality and required comfort level.

11.2 Provisions and Applicability

The green building provisions on various plot sizes are indicated in the table below:

Table 11—1: Provisions and applicability for various plot sizes (Residential and Non- Residential)

Plot Category	Applicable Plot area	Provision for Residential	Provision for Non -Residential
I	Up to 100	Nil	Nil
II	100 to 500	1(a), 2(a), 2(b), 4(a)	1(a), 2(b), 4(a)
	500 to 1000	1(a), 1(c), 2(b), 3(c) 4(a)	1(a), 1(c), 2(a), 2(b), 3(c), 4(a)
	1000 to 3000	1(a),1(c),1(d),2(a), 2(b), 3(b), 3(c)	1(a),1(c),1(d),2(a), 2(b), 3(b), 3(c)
III	Above 3000	1(a),1(b),1(c),1(d),2(a), 2(b), 3(a)	1(a),1(b),1(c),1(d),2(a), 2(b), 3(a)

*Note: Provisions marked 1(a), 2(b) etc. are as per section 13.3

The schemes/ projects formulated on the basis of provisions given in Master plan/ Zonal Development Plan will require approval as indicated:

EIA/ ECC (as per MoEF and CC), National Building Code 2016 or its latest version, ECBC 2007 or latest, BEE Star rating/ LEED of IGBC/ GRIHA of TERI Certification}

EIA- Environmental Impact Assessment Study Report,

ECC- Environmental Clearance Certificate,

MoEF – Ministry of Environment and Forest,

National Building Code 2016 or its latest version – National Building Code

ECBC – Energy Conservation Building Code,

BEE – Bureau of Energy Efficiency,

LEED – Leadership in Energy and Environment Design,

IGBC –Indian Green Building Council,

GRIHA – Green Rating for Integrated Habitat Assessment,

TERI – The Energy and Resources Institute.

The prevailing provisions of the above shall be applicable. However, if there are any modification in the same, the modified provisions shall become automatically applicable.

11.3 Provisions for Sanction

1. Water Conservation and Management
   a) Rainwater Harvesting
   b) Low Water Consumption Plumbing Fixtures
   c) Wastewater Recycle and Reuse
   d) Reduction of Hardscape
2. Solar Energy Utilization
   a) Installation of Solar Photovoltaic Panels
   b) Installation of Solar Assisted Water Heating Systems
3. Energy Efficiency (Concept of passive solar design of buildings)
   a) Low Energy Consumption Lighting Fixtures (Electrical Appliances – BEE Star and Energy Efficient Appliances)
   b) Energy Efficiency in HVAC systems.
   c) Lighting of Common areas by solar energy/ LED devices.
4. Waste Management
   a) Segregation of Waste
   b) Organic Waste Management

In case owners of properties desire to procure green building ratings from one or more rating bodies, they may suitably incorporate any other provisions if required and additional incentive FAR as per Master Plan may be availed.

11.3.1 Provisions for City and Site level greening

In alignment with National Sustainable Habitat Mission, the Authority shall encourage augmentation of green cover in the city/plot, by following:

The Urban Greening Guidelines, 2014 and other provisions as given below -

(a) Provision of minimum 1 tree / every 80sq.m.of plot area for plot sizes >100sq.m.and planted within the setback of the plot.

(b) Compensatory Plantation for felled/transplanted tress in the ratio 1:3 within the Premises under consideration.

(c) Choice of species for plantation in site and abutting the road to be adopted as per Section8 of the Urban Green Guidelines,2014.

(d) The unpaved area shall be more than or equal to 20% of the recreational open spaces.

11.3.2 Water Re-use and Recycling

All building having a minimum discharge of 10,000 Litres. and above per day shall incorporate wastewater recycling system. The recycled water should be used for horticultural purposes. *(Details are explained in Chapter 14 Grey Water Recycling).*

11.3.3 Roof Top Solar Energy Installations

Roof top photovoltaic power station, or rooftop PV system, is a photovoltaic system that has its electricity-generating solar panels mounted on the rooftop of residential or commercial buildings. The various components of such a system include photovoltaic modules, mounting systems, cables, solar inverters and other electrical accessories. Rooftop PV systems are faster than other types of

renewable power plants. They're clean, quiet, and visually unobtrusive. Table 10.2 below stipulates the Norms for Roof Top Solar PV Installation-

Table 11—2 : Norms for Roof Top Solar PV Installation and generation

S.No.	Category of buildings/area	Area standards	Generation requirement
	Plotted Housing		
1	Plotted Housing	For HIG Plots and above	Minimum 5% of connected load or 20W/sq.ft. for "available roof space"**, whichever is less.
2	Group Housing	All proposals, as per Group Housing Norms	Minimum 5% of connected load or 20W/sqft for "available roof space", whichever is less.
	All other buildings (Government or Private, defined as per clause 1.16 b to g) (mandatory for buildings having shadow free rooftop area > 50 sq.m.)		
3	Educational	Plot size of 500 sq.m. and above	Minimum 5% of connected loador 20W/sq.ft. for "available roof space", whichever is less.
4	Institutional		
5	Commercial		
6	Industrial		
7	Mercantile		
8	Recreational		

* Area provisions on roof top shall be @12 sq.m per 1KWp, as suggested by Ministry of New and Renewable Energy.

** "available rood area" = 70% of the total roof size, considering 30% area reserved for residents' amenities.

11.3.4 Installation of Solar Assisted Water Heating System in Buildings

(a) No new building in the following categories in which there is a system of installation for supplying hot water shall be built unless the system of the installation is also having an auxiliary solar assisted water heating system: -

(i) Hospitals and Nursing Home.
(ii) Hotels, Lodges, Guest Houses, Group Housing with a plot area of 4000 sq.m.
(iii) Hostels of Schools, Colleges and Training Centres with more than 100 Students.
(iv) Barracks of armed forces, paramilitary forces and police.
(v) Individual residential buildings having more than 150 sq m. plinth area.
(vi) Functional Buildings of Railway Stations and Air Ports like waiting rooms, Retiring rooms, rest rooms, inspection bungalows and catering units.
(vii) Community Centres, Banquet Halls, Barat Ghars, Mangal Karyalayas and Buildings for similar use.

(b) Definitions

(i) "Solar Assisted Water Heating System"- A device to heat water using solar energy as heat source.
(ii) "Auxiliary back-up" Electricity operated or fuel fired boilers/systems to heat water coming out from solar water heating system to meet continuous requirement of hot water.

(iii) "New Building" Such buildings of above said categories for which construction plans have been submitted to the Authority for clearance.

(iv) "Existing building" Such buildings, which are licensed to perform their respective business.

(c) Installation of Solar Water Heating System

(i) **New Buildings**: Clearance of plan for the construction of new buildings of the aforesaid categories shall only be given if they have a provision in the building design itself for an insulated pipeline from the rooftop in the building to various distribution points where hot water is required. The building must have a provision for continuous water supply to the solar water heating system. The building should also have open space on the rooftop, which receives direct sun light. The load bearing capacity of the roof should at least be 50 kg. per sq. m. All new buildings of above said categories must complete installation of solar water heating systems before obtaining necessary license to commence their business.

(ii) **Existing Buildings:** Installation of Solar Assisted Water Heating Systems in the existing building shall be made mandatory at the time of change of use to above said category provided there is a system or installation for supplying hot water.

(d) Capacity: The capacity of solar water heating system to be installed on the building of different categories shall be decided in consultation with the local bodies. The recommended minimum capacity shall not be less than 25 litres per day for each bathroom and kitchen subject to the condition that maximum of50% of the total roof area is provided with the system.

(e) Specifications: 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.

(f) Auxiliary System: Wherever hot water requirement is continuous, auxiliary heating arrangement either with electric elements or oil of adequate capacity can be provided.

11.3.5 Sustainable Waste Management

Zero Waste is a concept of waste management and planning approaches that emphasize waste prevention as opposed to end waste management. This means restructuring production and distribution systems, designing and managing products and processes to systematically follow the 3R rule of Reduce, Re-use and Re-cycle the volume of waste, to conserve and recover all used resources, and therefore eliminating all discharges to landfills, and prevent air, water and land pollution. Zero Waste/ land-fill can be achieved by adopting systematic approach of segregation at source by planning, by collection facilitation and most importantly by creating public awareness. The green waste can be converted into fuel cakes, kitchen waste into manure, construction & demolition waste into bricks, plastic waste into oil, paper, and glass and steel back into the same and all residual inert materials can also be converted into bricks. Achieving zero land -fill is more conveniently possible, if

(a) The collection is made from house to house and some segregation is done at household level

(b) Separate wet and dry bins must be provided at the ground level.

(c) The recycling is done at decentralized, say, ward or even lower levels.

11.3.6 Sustainability of Building Materials

Sustainability of natural resources for building materials shall be ensured through Conservation of available natural resources and use of supplementary materials such as Industrial/agricultural by-products, renewable resources, and factory-made building components and recycled construction and demolition waste.

Supplementary building materials (derived or processed waste) shall be suitably used in combination with conventional resources offers dual advantages in purview of Health & environmental benefits.

Use of Factory made pre-fab/pre-cast and recycled components with Green benefits:

(a) Panels, hollow slabs, hollow blocks – etc. - conservation of materials, less water requirement.

(b) Fly Ash bricks, Portland Pozzolana cement, Fly ash concrete, phosphor gypsum-based walling & roofing panels, particle wood – recycled use of industrial/ agricultural by-products.

(c) Fly ash/ AAC (Autoclaved aerated light weight\ concrete) panels/ CLC (Cellular light weight concrete) panels- ensures thermal comfort (significant reduction in air conditioning requirement)

(d) Use of bamboo & rapidly growing plantation timbers- environmental benefits. Local materials are generally suitable for prevailing geo-climatic conditions & have advantage of low transportation cost & time. Sustainable use of building materials shall be encouraged which may combine certain mandatory provisions and incentives.

11.4 Various Guidelines for Green Rating systems

The accreditation with the regulator-- Bureau of Energy Efficiency, Ministry of Power, GOI—will make the firms eligible for Green Rating systems.

CHAPTER 12: GREY WATER RECYCLING

Whereas it is expedient to regulate the activities such as:

(a) Pre-treatment of Grey Water, sewage and grey water before it is accepted for reuse for the purpose of non-portable use;

(b) Installation of flow meters, samplers or other devices to measure flow and quality of the sewage, recycled water & industrial waste discharge;

(c) Pre-treatment of Grey water and Sewage as per classification before it is accepted for discharge to the sewerage system;

(d) Separation of non-portable water plumbing and portable water plumbing;

(e) Sampling and monitoring of industrial waste discharges to ensure compliance of conditions under the byelaws;

(f) Encouraging the use of treated recycles water for non-portable use;

12.1 Definitions

In these Byelaws:

'Grey Water' means water involving water from sinks, tubs, showers and washing.

'Industrial/Commercial Premises' means any premises which is being used or intended to be used (whether for profit or not) for carrying on any trade, business, education, research or industry.

'Commercial Waste' or 'Wastes' are the waste removed from an industrial plant or other premises by way of discharge of any liquid, with or without matter in suspension or solution therein, that is or may be discharged from trade premises in the course of any trade or industrial process or operation or in the course of an activity or operation of alike nature.

'Inspector' includes whoever the President/ Executive Officer of Municipal Committee Council has appointed in writing for the purposes of these Byelaws.

'ISO5667' means the latest edition complete with any amendments, of international Standards ISO 5667:2003 Water Quality Sampling.

Part1:1980Guidance on the design of Sampling programmes.

Part2:1991Guidance on sampling techniques.

Part3:1994Guidance on the preservation and handling of samples.

Part10:1992Guidance on sampling of Greywater

'ISOTR9824'means the latest edition complete with any amendments, of international Standard ISO TR 9824: Measurement of liquid flow in open channels;

Part1:1990Measurement of free surface flow in closed conduits Methods. Part2: 1990Measurement of free surface flow in closed conduits Equipment.

'Sewerage System' means all types of sewer, appurtenances, pumping stations, storage tanks, waste water treatment facility plants, marine outfalls and other related structures existing in the urban area and used for the reception, treatment and disposal of waste water and also termed as "waste water system"

'Waste minimization' means the implementation on trade premises, of operations and restrictions, appropriate to the goal of reducing or eliminating the quantity and toxicity of wastes.

Section 'A' Applicability of Grey Water Reuse Byelaws

12.1.1 Applicable to all group housing, commercial and industrial premises which fall in one of the following categories:

Category 1: Whose plot area is more than 2000 Sq.m.

Category 2: Water quota is more than 40,000 litres/day

Category 3: Premises which has more than 50 dwelling unit of any kind.

12.1.2 Exemptions could be accorded under following circumstances, as decided by the authority

In case the existing premises cannot permit the provision of additional overhead tank for the purpose of the use of treated water.

If, in the existing structure, there is no space for installation of treatment facility and collection chamber

12.2 Enforcement of byelaws:

In case of existing properties, President/ Executive Officer of Municipal Committee/ Council or his authorized officer will issue a notice to the occupier for making arrangements of for reuse of Grey Water within specified time.

In case of proposed/intending/under redevelopment properties, the occupier/developer/builder will submit an application directly or through his authorized consultant to the President/ Executive Officer of Municipality Committee/ Council with details of proposed 'Discharge management Plan' along with the application for demand of water permission to connect the Grey Water/Sewerage to municipal sewerage system where ever applicable.

12.3 Granting a Permission

Every premises will be granted permission for the discharge of industrial waste or wastes to the municipal sewerage system only if the recycling measures and conditions set forth in schedules issued under this Byelaw are fulfilled.

12.4 Waste tests and their results

An occupier of an industrial plant or premises requiring a license shall provide to the President/ Executive Officer of Municipal Committee/Council or an authorized officer once a year for the purpose of receiving a license, test results of the industrial wastes discharged from the plant or premises.

Without derogating the provisions specified in in this Building Byelaws, the occupier of a premises requiring a license or the occupier of a controlled plant or premises, shall provide to the Authority, the test results of the industrial wastes or waste discharged from the plant or premises at any time he is requested in writing to do so by the President/ Executive Officer of Municipality Committee/ Council.

The testing of wastes and the submission of the results shall be done in a manner in accordance with the terms and conditions prescribed by the Authority or an authorized officer in this regard.

This Byelaw accords the Authority, his agent or an authorized officer of their authority to visit the plant premises at any reasonable time.

12.5 Notices for testing of discharge

The Authority may order the testing of sample industrial waste or wastes as described in clause 12.4 of this Building Byelaws, he feels that the circumstances so demand and he may, by written notice, direct the plant or premises occupier to pay the expenses of performing such tests.

A controlled plant whose occupier received notice as stated in clause 12.4 of this Building Byelaws shall comply the provisions of Clause 12.3 of this Building Byelaws prescribed above for that purpose.

12.6 Operational Permission for the Grey Water Recycling Treatment Plant

The Authority may determine on the basis of test results of the wastes that were provided to him or that were performed at his instance or behalf, that a recycled water plant is fulfilling the requirements and will issue permission in writing to put the plant on permanent to the occupier.

The occupier shall operate the plant as specified.

12.7 Separation of Grey Water:

The wastes from toilets in the premises will be separated from grey water that is of bathroom and kitchen wastes by means of separate down take discharge system. The grey water shall be recycled by providing recycling plant and shall be reused for non-portable purposes after storing the same in distinctly separate tank by means of purple coloured down take pipes. The water quality shall conform to standards of non-portable water. The recycled water shall be tested once in six months and results shall be made available to Authority or his authorized officer whenever demanded.

The make-up connection to the system will be done at the collection tank of the treated water, through a free fall if from Municipal water connection, but preferable from a local source like borewell.

12.8 Conditional Waste Discharge Permission:

Waste discharge of the conditional type plant will be allowed on the issuance of conditional permission provided the conditional type plant has recycling and reuse of water facility and not exceeding limits given in as per Jammu & Kashmir Pollution Control Board (JKPCB) norms.

12.9 Mandatory notice regarding changes:

An occupier of premises shall inform the Authority of any change in the quality, nature or quality of the wastes discharged from his plant or premises, the manner of their discharge or extra requirement of external supply of water in variation or violation of license under these byelaws.

12.10 Authority to change license/notice conditions:

The Authority or his authorized officer, having given a license or a notice in writing, may revoke, modify or stipulate conditions to the license or notice if not satisfied on inception of the plant, premises or test reports.

12.11 Delivery of Notice/Permission.

Notice/permission required by this byelaw shall be deemed to have been delivered lawfully if it is given in to the hand of their intended receiver with acknowledgement, or delivered to his place or residence or his place of occupation or place known to be so with acknowledgement, or to adult member of his family or to an adult employee with acknowledgement, or if sent by registered mail to the same person according to his place of residence, of normal place of employment recently known to be so. If it is not possible to make the delivery as stated, the notice will be assumed to have been delivered lawfully if the notice is pasted in a conspicuous place in one of the above stated locations.

12.12 Corrective action

Any person violating the provisions of these byelaws shall be fined Rs. 5000/- only on the day of detection and if the violation continues shall be fined Rs. `100/- only for every day as a corrective action after a written notice from the Authority or his authorized officer is delivered to him.

Failure to operate (as determined by the Inspector or authorized officer of MC Municipality from the observations of test results and/or physical verification) the recycling plant will attract a penalty of Rs. 500/- per day and/or disconnection of water connection.

12.13 Authorization of Officers

The Authority will authorize his officers/inspectors and will delegate the necessary powers for carrying various duties under this byelaw.

CHAPTER 13: CLIMATE RESILIENT CONSTRUCTION – INTEGRATION OF ENVIRONMENTAL CLEARANCE WITH SANCTION

Land, Air, Noise, Water, Energy, biological/ socio-economic/ solid / other waste management are the main facets considered in relation to Pre, during and Post. Building Construction for Sustainable Environment Management. Therefore, it is necessary for the building process to ensure compliance to various conditions laid down by the Ministry of Environment, Forest and Climate Change (MoEF and CC).

The building construction sector is a major contributor towards carbon footprints which affects climate change. India is committed towards mitigating the effects of climate change and moving towards internationally accepted norms for environmentally friendly building construction. Currently this objective of environmental safeguard is achieved through obtaining a specific environmental clearance (EC) for any construction project having a size of more than 20,000 Sq. m. This is administered under notification of Ministry of Environment, Forest and Climate Change.

With rapid urbanisation and growth of Indian economy, it is anticipated that the construction activity will experience a proportionate growth. Government is also committed towards streamlining of clearances for buildings and real estate sector and empowering the urban local bodies with an objective of Ease of Doing Business.

13.1 Environmental conditions for compliance during Building approvals

The Ministry of Environment, Forest and Climate Change has now decided to integrate the environmental concerns into building plan approval process and empowering the concerned local body/development authority to approve and certify compliance of stipulated requirements. The new building construction proposals are classified in the following 3 categories: -

(i) Conditions for Category 'A' Buildings: Built-up Area 5000 Sq. m – 20000 Sq. m.

(ii) Conditions for Category 'B' Buildings: Built-up Area 20000 Sq. m – 50000sq.m.

(iii) Conditions for Category 'C' Buildings: Built-upArea50000sq.m–150000sq.m.

States are, therefore, advised to amend their building by-laws by incorporating the set of conditions for each category A, B and C as mentioned above either for the entire State/UT or clearly identified part thereof, where they would like to integrate the environmental clearance conditions with building permissions and empower the local authority to examine, stipulate and ensure compliance of conditions required to address environmental concerns. the State/UT should submit such proposal/notification at draft stage as well as a copy of the final notification to the MoEF and CC.

(a) For building plans with a total built-up area between 5,000 sqm and 1, 50,000 sqm, and environment clearance will be required to be synchronized with the building regulations.

(b) The concerned Urban local body, authorized to sanction building plans, shall ensure at the time of sanctioning a building plan that the environmental requirements stipulated in Table 16.1 (for above 5,000 sqm and up to 20,000 sqm), Table 12.2 (for above 20,000 sqm and up to 50,000 sqm) and Table 12.3 (for above 50,000 sqm and up to 1,50,000 sqm), as the case may be, are complied with.

Table 13—1 : Environmental Conditions for Building and Constructions (Category "A" 5000 Sq. m-20000 sq.m.)

S. No.	Medium	Environmental conditions	MBBL Ref. Clause
1	Natural Drainage	The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water.	_
2	Water conservations-Rainwater Harvesting and Ground Water Recharge	A rainwater harvesting plan needs to be designed where the recharge bores (minimum one per 5000 sqm of built-up area) shall be provided. The rainwater harvested should be stored in a tank for reuse in household through a provision of separate water tank and pipeline to avoid mixing with potable municipal water supply. The excess rainwater harvested be linked to the tube well bore in the premises through a pipeline after filtration in the installed filters.	Table 9.1
2 (a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.	10.2.1 (iv)
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.	10.2.5 (b)
4	Energy	In common areas, LED/solar lights must be provided.	10.2 (3)
5	Air Quality and Noise	Dust, smoke and debris prevention measures such as screens, barricading shall be installed at the site during construction. Plastic/tarpaulin sheet covers must be used for trucks brining in sand and material at the site.	_
5(a)		The exhaust pipe of the DG set, if installed, must be minimum 10m away from the building. In case it is less than 10m away, the exhaust pipe shall be taken up to 3m above the building.	__
6	Green Cover	A minimum of 1 tree for every 80 sqm of land shall be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species.	10.2.1 (i)

S. No.	Medium	Environmental conditions	MBBL Ref. Clause
6(a)		Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done with the obligation to provide continued maintenance for such plantations.	10.2.1 (ii)

Table 13—2:Environmental Conditions for Building and Constructions (Category "B"20000sq.m.-50000sq.m.)

S. No.	Medium	Environmental conditions	MBBL Ref. Clause
1	Natural Drainage	The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water.	_
2	Water conservations-Rainwater Harvesting and Ground Water Recharge	A rainwater harvesting plan needs to be designed where the recharge bores (minimum one per 5000 sqm of built-up area) shall be provided. The rainwater harvested should be stored in a tank for reuse in household through a provision of separate water tank and pipeline to avoid mixing with potable municipal water supply. The excess rainwater harvested be linked to the tube well bore in the premises through a pipeline after filtration in the installed filters.	Table 9.1
2 (a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.	10.2.1 (iv)
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.	10.2.5 (b)
4	Energy	In common areas, LED/solar lights must be provided.	10.2 (3)
4(a)		At least 1% of connected applied load generated from renewable energy source such as photovoltaic cells or windmills or hybrid should be provided.	10.2
4(b)		As per the provisions of the Ministry of New and Renewable energy solar water heater of minimum capacity 10 litres/4 persons (2.5 litres per capita) shall be installed.	1-2.4-IV
4(c)		Use of fly ash bricks: Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and as amended from time to time.	10.2.6 (b)

5	Air Quality and Noise	Dust, smoke and debris prevention measures such as screens, barricading shall be installed at the site during construction. Plastic/tarpaulin sheet covers must be used for trucks brining in sand and material at the site.	_
5(a)		The exhaust pipe of the DG set, if installed, must be minimum 10m away from the building. In case it is less than 10m away, the exhaust pipe shall be taken up to 3 m above the building.	__
6	Green Cover	A minimum of 1 tree for every 80 sqm of land shall be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species.	10.2.1 (i)
6(a)		Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done with the obligation to provide continued maintenance for such plantations.	10.2.1 (ii)

Table 13—3: Environmental Conditions for Building and Constructions (Category "C" 50000 sq.m.-150000 sq.m.)

S. No.	Medium	Environmental conditions	MBBLRef.Clause
1	Natural Drainage	The inlet and outlet point of natural drain system should be maintained with adequate size of channel for ensuring unrestricted flow of water.	_
2	Water conservations-Rainwater Harvesting and Ground Water Recharge	A rainwater harvesting plan needs to be designed where the recharge bores separate water tank and pipeline to avoid mixing with potable municipal water supply. The excess rainwater harvested is to be linked to the tube well bore in the premises through a pipeline after filtration in the installed filters (minimum one per 5000 sqm of built-up area) shall be provided. The rainwater harvested should be stored in a tank for reuse in household through a provision of	Table 9.1
2 (a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.	10.2.1 (iv)
2(b)		The ground water shall not be withdrawn without approval from the BPIA .	
2(c)		Use of potable water in construction should be minimized.	
2(d)		Low flow fixtures and sensors must be used to promote water conservation.	

2(e)		Separation of grey and black water should be done by the use of dual plumbing system.	
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level forfacilitating segregation of waste.	10.2.5 (b)
3(a)		All non-biodegradable waste shall be handed over to authorized recyclers which a written tie-up must be done with the authorized recyclers.	
3(b)		Organic waste composter/vermin culture pit with a minimum capacity of 0.3 kg/tenement/day must be installed wherein the STP sludge may be use3d to be converted to manure which could be used at the site or handed over to authorized recyclers for which a written tie-up must be done with the authorized recyclers.	
4	Energy	In common areas, LED/solar lights must be provided.	10.2 (c)
4(a)		At least 1% of connected applied load generated from renewable energy source such as photovoltaic cells or windmills or hybrid should be provided.	10.2
4(b)		As per the provisions of the Ministry of New and Renewable energy solar water heater of minimum capacity 10 litres/4 persons (2.5 litres per capita) shall be installed.	1-2.4-IV
4(c)		Use of fly ash bricks: Fly ash should be used as building material in the construction as per the provisions of Fly Ash Notification of September 1999 and as amended from time to time.	10.2.6 (b)
4(d)		Use of concept of passive solar design of buildings using architectural design approaches that minimize energy consumption in buildings by integrating conventional energy-efficient devices, such as mechanical and electric pumps, fans, lighting fixtures and other equipment, with the passive design elements, such as building orientation, landscaping, efficient building envelope, appropriate fenestration, increased day lighting design and thermal mass.	10.2(3)
4(e)		Optimize use of energy systems in buildings that should maintain a specific indoor environment conducive to the functional requirements of the building by following mandatory compliance measures (for all applicable buildings) as recommended in the Energy Conservation Building Code (ECBC) 2007 of the Bureau of Energy Efficiency, Government of India.	10.2 (3)
5	Air Quality and Noise	Dust, smoke and debris prevention measures such as screens, barricading shall be installed at the site during	_

		construction. Plastic/tarpaulin sheet covers must be used for trucks brining in sand and material at the site.	
5(a)		The exhaust pipe of the DG set, if installed, must be minimum 10m away from the building. In case it is less than 10m away, the exhaust pipe shall be taken up to 3 m above the building.	__
6	Green Cover	A minimum of 1 tree for every 80 sqm of land shall be planted and maintained. The existing trees will be counted for this purpose. Preference should be given to planting native species.	10.2.1 (i)
6(a)		Where the trees need to be cut, compensatory plantation in the ratio of 1:3 (i.e. planting of 3 trees for every 1 tree that is cut) shall be done with the obligation to provide continued maintenance for such plantations.	10.2.1 (ii)
7	Sewage Treatment Plant	Sewage treatment plant with capacity of treating 100% wastewater shall be installed. Treated water must be recycled for gardening and flushing.	4.32.4
8	Environment Management Plan	The environment infrastructure like Sewage Treatment Plant, Landscaping, Rainwater Harvesting, Power backup for environment, infrastructure, Environment Monitoring, Solid Waste Management and Solar and Energy conservation, should be kept operational through Environment Monitoring Committee with defined functions and responsibility.	__

(Source: Model Building Byelaws 2016, Town and Country Planning Organisation, Ministry of Urban Development (now Ministry of Housing and Urban Affairs-MOHUA)

CHAPTER 14: GENERAL REFERENCES

14.1 Facilities for physically handicapped persons

For requirements regarding Facilities for Physically Handicapped Persons, reference shall be made to part 3 Development Control Rules and General Building Requirements of the **National Building Code 2016** or its latest version which shall apply.

14.2 Fire and Life Safety

For requirements regarding Fire and Life Safety for different Occupancies, reference shall be made to part 4 Fire and Life Safety of the **National Building Code 2016** or its latest version.

14.3 Design and Construction

For requirements regarding structural design, reference shall be made to part 6 Structural design of the National Building Code. For requirements regarding construction (including management and safety), reference shall be made to part 7 Construction Management, Practices and safety 'of the **National Building Code 2016** or its latest version.

14.4 Building services

14.4.1 Lighting and Ventilation

For requirements regarding Lighting and ventilations for different uses and occupancies reference shall be made to part 8 "Building Services", Section 1 "Lighting and Natural Ventilation" of the **National Building Code 2016** or its latest version.

14.4.2Electrical and Allied Installations (Including Lighting Protection of Buildings and Solar Energy Utilization)

For requirements regarding Electrical Installations in Buildings Including Lighting Protection of Buildings reference shall be made to part 8 "Building Services" Section 2 Electrical and Allied Installations of the **National Building Code 2016** or its latest version.

14.4.3Air Conditioning, Heating and Mechanical ventilation

For requirements regarding design, construction and installation of Air Conditioning, Heating and Mechanical ventilation systems, reference shall be made to part 8 "Building Services" Section 3 Air Conditioning, Heating and Mechanical ventilation of the National Building Code 2016 or its latest version.

14.4.4 Acoustics, Sound Insulation and Noise Control

For requirements regarding the desired Noise levels and sound Insulation in different occupancies reference shall be made to part 8 "Building Services" Section 4 Acoustics, Sound Insulation and Noise Control of the **National Building Code 2016** or its latest version.

14.4.5 Installation of Lifts Escalators and Moving Walks

Provision for Lifts shall be made for buildings 15m or more in height For requirements regarding planning, designing and installation etc. of Lifts Escalators, reference shall be made to part 8 "Building Services" Section 5 Installation of Lifts Escalators and Moving Walks of the **National Building Code 2016** or its latest version.

14.4.6 Information and Communication Enabled Installations

For requirements regarding Information and Communication Enabled Installations in Buildings reference shall be made to part 8 "Building Services" Section 6 Information and Communication Enabled Installations of the **National Building Code 2016** or its latest version.

14.5 Plumbing Services (Including Solid Waste Management)

For requirements regarding water supply, drainage and Sanitation, Solid Waste Management and gas supply reference shall be made to part 9 "Plumbing Services (Including Solid Waste Management)" of the National Building Code 2016 or its latest version.

14.6 Landscape Development

For requirements regarding Landscape development, reference shall be made to part 10 'Landscape Development and Sign and outdoor display structures' Section 1 Landscape Planning and development of the **National Building Code 2016** or its latest version.

14.7 Sign and outdoor display structures

No advertising signs (including hoarding) on buildings or on land shall be displayed without the prior approval of the Authority. The standards specified in Section-2 of part 10 Signs and outdoor display structures of **National Building Code 2016** or its latest version.

14.8 Sustainability

For requirements regarding sustainable buildings and built environment, reference shall be made to part 11 'Approach to Sustainability' of the **National Building Code 2016** or its latest version.

14.9 Asset and Facility Management

For requirements regarding Asset and Facility Management in respect of Existing Buildings and services thereof, reference shall be made to part 12 Asset and Facility Management of the **National Building Code 2016** or its latest version.

14.10 Energy Conservation Building

For requirements regarding Energy Conservation Building guidelines reference shall be made to **Energy Conservation Building Code 2017** or its latest version & the J&K UT ECBC whenever framed.

Note: Whenever an Indian Standard including those referred in the National Building Code or the National Building Code is referred; the latest revision of the same shall be followed except specific criteria, if any, mentioned above against that code.

14.11 Health Guidelines:

Refer guidelines issued by Department of Health, Family Welfare and Medical Education, Government of Jammu and Kashmir.

14.12 Education Guidelines:

Refer SRO 123 or latest guidelines issued by Department of Education, Government of Jammu and Kashmir.

14.13 Sports Guidelines:

Refer latest guidelines issued by Sports Department, Government of Jammu and Kashmir.

APPENDICES

Appendix "A": Form for Application to Erect, Re-Erect or to make Material Alteration in any Place in a Building

(To be submitted in duplicate)

To

Commissioner/Vice Chairman/Secretary

Development Authority/ Municipal Corporation/ Council/ Committee

Sir,

I hereby give notice on behalf of Shri…….(owner) that the owner intends to erect/demolish or make alteration in the building number or to on/in Plot No……. Block No…….. House No …….. situated at …….Scheme...……....an d in accordance with the building Bye-law No……. and I forward herewith, the following plans and specification duly signed by me and by the owner.

1. Site plan
2. Building Plan
3. Service Plan
4. Parking and circulation plan.
5. Landscape Plan
6. General Specifications (in attached form)
7. Ownership Title (Lease/Conveyance/Sale Deed, etc)
8. Other document, as required

ii) The building plan has been prepared strictly as per the approved building Byelaws and relevant IS Codes / provisions of NBC. The construction shall be carried out in accordance with the building plan and I shall be completely accountable for any lapse on my part up to within 6 months after obtaining completion certificate of the building.

iii) The Building permit fee as required under Byelaws has been deposited vide receipt No ……dated. ……(Photocopy enclosed).

iv) I am aware that in the event of building being constructed in violation of the sanctioned building plan approval, the Authority shall have the right. to take action against me as it may deem fit including referring the matter to concerned professional and statutory councils for taking disciplinary action against me.

……..	…….
Signature of the Owners	(Signature of Registered/Architect/Engineer/Supervisor)
Name of owner(s)…….. …	
Address of the owner(s)……	Registration No. of the Architect/Engineer/Supervisor
Address of the Architect/Engineer/ Supervisor	
Encl: As stated above	Dated: ……..

Appendix "A-1": Statement of the Proposal and Certificate

By the Owner and Registered Architect

Classification of the Proposal…… (To erect/re-erect/demolition)

Scheme /Colony ……...……. Plot No. ……..…… Plot Area ……. sq.m. Size (in m)

Area Statement

Description	**Permissible**	**Proposed sq.m.**	**Remarks sq.m.**
Max. Ground coverage			
Basement			
Ground Floor			
First Floor			
Second Floor			
Third Floor			
Total Floor area			
Floor Area Ratio			
No. of Dwelling Units			

Maximum height (in m)

Setbacks	**As per approved Layout plan (m.)**	**Proposed (m.)**
Front		
Rear		
Left		
RigHt.		

Parking Details

Building Use	**Parking Required as per Building Bye law**	**Proposed (m.)**
Residential		
Commercial		
PSP		
Other…		

ii) Fees and Charges

a) Building Permission Fess ……..
b) Infrastructure Development Fees……..
c) Additional Floor Space Fees ……
d) Any other (as applicable)……
Total Amount as per details above……..

Receipt No…..... Dated….....

We hereby certify that

1. The plot in question forms part of the approved layout plan and its location size and area conform to the approved layout plan and lease/sale deed/NOC of the lease Administration Branch of concerned Development Authority.
2. Plot is lying vacant and no construction shall be started before sanction.
3. The plot is free from all encumbrances (owner responsibility).
4. The period of construction valid up to ..... As per the lease condition / further extension of time for construction granted by the lessor is valid up to ..... Time construction obtained from the lease Administration Branch, Concerned Development Authority.
5. Size of each dwelling unit is not more than 300 sq.m.

Signature of Owner
Name.....
……
Address……
…….

Dated……

Signature of Registered Architect
Name.....
Registration No. …….
Address……
……

……

Authority Letter

I hereby authorize Mr./Mrs..... to collect the sanction whose signature is verified below

Specimen signature of signature of the owner(s)/Registered Architect/ Mr./Mrs.....

Dated received..... Date ..... (Signature of authorized person / owner / Registered Architect)

Dated: ..... Remark, if any.....

Appendix "A-2": Form for Specifications of Proposed Building

The purpose (Residence, Office, Restaurant, Hotel, Dharmshala, School, Hostel Cinema, Shop, Factory Others) for which it is intended to be used……
……

Table A-2: 1 Details of coverage on respective floor are given below:

S.N.	Floor	Existing (sq.m)	Proposed (sq.m)	Total (sq.m)
1	Basement Floor			
2	Ground Floor			
3	Mezzanine Floor			
4	First Floor			
5	Second Floor			
6	Third floor			
7	……..			

a) Approximate number of in habitants proposed to be accommodated……
……

b) The number of latrines, Urinals, Kitchens, Baths to be provided……
……..

c) The source of water to be used in the construction……
……..……

d) Distance from public sewer…….……

e) The materials to be used in construction Walls/Columns/Foundations/Roof/ Floors…….……

Signature of Registered Architect/Engineer/Supervisor

Name…….……
Registration No…….
Address……..……....
…….……..

Appendix "A-3": Form for Supervision

To
The Commissioner/Vice-Chairman/Secretary
Development Authority/ Municipal Corporation/ Council/ Committee

Sir,

Iherebycertifythaterection/re-erectiondemolitionormaterialalteration in/of Building No……. on / in ……. Plot No……in Block No…… situated at ……... scheme……...… shall be carried out under my supervision and I certify that all the materials (type& Grade) and work man ship of the work shall be generally in accordance with the general specification submitted along with and the work shall be carried out according to the sanctioned plans which also included the services like drainage, sanitary, water supply, and electrical.

Signature of Registered Architect Engineer/Supervisor

…….
Name of Registered Architect/Engineer/Supervisor
(In block letters) ……...…….....

Registration No. of Architect/Engineer/Supervisor

……
Address of Registered Architect/Engineer/Supervisor
……

Dated: ……

Appendix "A-4": Undertaking for Payment of Other and Peripheral Charges

Note: It should be on non-judicial stamp paper of specified amount attested by Notary Public / First class Magistrate.

Undertaking

I ……Son of Shri ……. aged……..... Years residents of …….Owner of Plot No …… in……..Co-operative Housing Building Society Ltd…… hereby undertake to pay the balance of peripheral and other charges as and when required by the concerned Authority and in this regard Authority's decision will be finally binding on me.

Executed by me as……on day of…….....2004.

…….

Executant

Witness:

1……

2……

Appendix "A-5": Affidavit-cum-Undertaking

(Affidavit of Competent Professional on Rs. 2/- Non-Judicial Stamp paper of specified amount to be attested by Notary Public/Metropolitan Magistrate)

I …… son of ……Architect by profession having office at…….Do hereby solemnly affirm and declare as under:

1. That I am a Licensed Architect/Engineer/Supervisor/Plumber duly registered with the Authority vide registration No. ……..……

2. That I have been engaged as a Competent professional as per Table 2—2: Procedure for Building Permission of Non-Residential Use Building of the Byelaws for preparing the building plans and to supervise construction in respect of Plot No……...Block No…… situated at……

3. That I have prepared the building plans in respect of the aforesaid plot.

4. That I have studied the layout plan of the colony and gone through the instructions, policy decisions and other relevant documents in respect of the plot and colony.

5. That I have personally inspected the site. The plot under proposal forms part of the approved layout plan with respect to its location, size shape and area of the plot and proposed land use is also in conformity with the approved layout plan. The plot has been demarcated at site and the size, shape and area of plot available at site tallies with the approved layout plan.

6. That the ownership documents are in the shape of registered sale-deed/lease- deed in favour of the applicants and have been thoroughly examined and the ownership in favour of the applicant is in order.

7. That there is no construction in existence at the plot and no construction shall be started before sanction of the building plans.

8. That there is no encroachment on the Municipal land/road/other property and road widths as shown in the layout plan are available at site.

9. That the proposal is in conformity with the terms and condition of lease deed which is still valid and period of construction as per lease-deed and the extension granted by the lessor is valid up to……

10. That the proposal has been prepared strictly in accordance with the Master Plan/Zonal Plan/Building Byelaws rules regulation and practice of the department and no misinterpretation on inference of provision of Building Bye-Law has been done while preparing the plans. The construction shall be carried out strictly in accordance with the sanctioned building plans and in case any deviation is carried out, I shall inform the concerned Authority within 48 hours.
11. That in case the owner dispenses with my services at any stage whatsoever, I

shall inform the concerned Authority within 48 hours.

12. That the size of each dwelling unit is not more than 300 sq. m.

13. That mandatory setbacks have been proposed and shall be maintained in accordance with the setbacks marked in the layout plan/Master Plan/zonal plan/building byelaws.

14. That before submission of the proposal, necessary information/clarification have been obtained from the concerned department of the concerned Authority. The plot is safe and is not affected in any scheme or the road widening. Building activities for residential use are allowed with number of storeys as per approved layout plan.

15. That no development/additional development/deficiency charges are payable, against this plot (in case development/additional development/deficiency charges are payable then its details be given in the separate para)

16. That no non-compoundable deviations shall be carried out during the course of construction.

17. That nothing has been concealed and no misrepresentation has been made while preparing and submitting the building plans.

18. That in case anything contrary to the above is found or established at any stage, the concerned Authority shall be at liberty to take any action as it may deem fit including revocation of sanction of building plans and debarring me for submission of building plans with the Authority under the scheme and also lodge a complaint with the Council of Architecture for appropriate action.

Deponent

Verification:

I the above-named deponent do hereby verify at ……..... on this……. of …….. 20…… that contents of the above affidavit are true and correct to my knowledge. No part of it is false and nothing has been concealed there from.

Deponent

Appendix "A-6": Building Permit/Sanction

File No…… Dated…….

To

Subject: Sanction u/s…… Dear Sir or Madam,
With reference to your application dated…….. for the grant of sanction to erect/re-erect/add to/alteration in the building to carry out the development specified in the said application relating to Plot No…… Block No……. situated in/at……. I have to state that the Authority subject to the following conditions and corrections done in the plans has sanctioned the same on…….

1. The plans are valid up to ……day……Months ……. year ……

2. The construction will be undertaken as per sanctioned plan only and no deviation from the Byelaws will be permitted without prior sanction. Any deviation done against the Byelaws is liable to be demolished and the supervising Architect engaged on the job will run the risk of being blacklisted.

3. Violation of building Byelaws will not be compounded.

4. It will be the duty of the owner of the plot and the Architect preparing the plans to ensure that the sanctioned plans are as per prevalent Master Plan/Zonal Plan/Building Byelaws. If any infringement of Byelaws remain unnoticed, the concerned Authority reserves the rigHt. to amend the plans as and when infringement come to the notice and concerned Authority will stand indemnified against any claim on this account.

5. A notice in writing shall be sent to Authority before commencement of the constructions of the building as per Byelaws. Similar notice will be sent to Authority when the building has reached up to plinth level.

6. The owner shall not occupy or permit to occupy the building or use or permit to use the building or any part thereof affected by any such work until Completion certificate is issued by the concerned Authority.

7. Concerned Authority will stand indemnified and kept harmless from all proceedings in court and before other authorities of all expenses /claims which the concerned Authority may incur or become liable to pay as a result or in consequences of the sanction accorded by it to these building plans.

8. The doors and window leaves shall be fixed in such a way that they shall not, when open project on any street.

9. The owner will not convert the house into more dwelling units on each floor then the sanctioned.

10. The building shall not be constructed within minimum distance as specified in Indian Electricity Rules from voltage lines running on side of the site.

11. The land left open as a consequence of the enforcement of the setback rule shall form part of the public street.

12 The owner shall ensure that the public areas like road, parks and other public opens spaces are not used for stacking the building materials or machineries to avoid public inconvenience and nuisance.

13. The sanction will be void if auxiliary conditions mentioned above and other conditions whatsoever imposed are not complied.

14. The owner will use the premises for the use, which has been sanctioned.

15. The owner will not proceed with the construction without having the supervision of an Architect/Engineer as the case may be. If he\she changes his Architect\Engineer, he\she shall inform the Authority about the appointment of new Architect\Engineer within 48 hours, with a proper certificate from him.

Yours Faithfully

For ……

Encl: A set of sanctioned plan.

Appendix "A-7": Form for Refusal of Building Permit

To

File No……. Dated
……

Sir.

With reference to your application No…….dated…….. for the grant of sanction for the erection of building/execution of work in House No…….. Plot No……..Block No……. Scheme…….. Situated at ……. I have you inform you that building permit under relevant provisions of the Act of……... has been refused on…… on the following grounds.

1

2

3

4

5

Yours faithfully

For……..

Authority.

Appendix "A- 8": Form of Revalidation

File No…….
Dated…….

Shri /Madam ……
……..
……..

Subject: Revalidation of Building Plans relating to plot No…… Block No……. Scheme…….

Dear Sir / Madam, Block No.

1. With reference to your application dated……on the subject cited above, I am directed to inform you that your building plan which were sanctioned on……. vide file No……..have been revalidated up to ……

2. Original sanctioned plan submitted by you is also returned herewith.

3 Please acknowledge receipt.

Yours Faithfully,

For ……

Authority

Encl: As above.

Appendix "A-9": Information for Intimation of Completion of Work up to Plinth Level

To

The ……

……Authority,

Sir,

The construction up to plinth/column up to plinth level has been completed in Building No…….. on/in Plot No…… Scheme No…….. Road/Street ……Ward……in accordance with your permission No……..dated……..under my supervision and in accordance with the sanctioned plan.

Yours faithfully,

Signature of Licensed Architect/Engineer/Supervisor

Name

……..(In Block letters)

Address:……..

……Date:……

…….

Appendix "A -10": Inspection Report

I……working as a …… with …… have carried out the inspection of Building No……..on/in Plot No…….. Scheme No.…….Road/Street……ward..…….. in accordance with permission No……...dated…….... .The following deviation from the sanctioned plans have been noticed which are against the provision of Master Plan / Byelaws are of non-compoundable nature.

Description of deviations noticed: ……

……

……

……

You may not proceed with further work till such time the deviations made are rectified and construction brought in conformity to sanction plans.

Yours Faithfully

For……

…….

…….

BPIA

Office No……..

Office Stamp…….

Date……...

Appendix "A-11": Form of Notice of Completion

(To be submitted along with prescribed fee for notice of completion and other relevant documents**)**

To

The …….

……Authority,

Dear Sir,

I/We hereby give notice that I/We have completed the erection of building/execution of the works in Plot No …… Block No…….Scheme…… situated at……. in pursuance of the sanction granted by the Authority vide File No…… dated……I/We are enclosing all reports of the Authority inspection carried out during construction period.

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

Yours Faithfully,

Signature of owner……

Name of owner ……

(In Block letters)

Address of the owner ……

……

Dated: ……..

Encl : As above

Appendix "A-12": Form for Certificate of Architect/Engineer/Supervisor

(To be submitted along with notice of completion)

To

The …….

……Authority,

Dear Sir,

We hereby certify that the erection, re-erection or material alteration in/at building No……..on in Plot No……...…… Block No…….Scheme…….situated at……...has been supervised by me and has been completed on ……. according to the plans sanctioned, vide office communication No……. dated ……..The work has been completed to our best satisfaction, the workmanship and all the materials (type & grade) have been used strictly in accordance with general and detailed specifications. All the drainage/Sanitary/Water Supply work has been executed under our supervision and as per Building Byelaws. No provisions of the Building Byelaws and condition prescribed or order 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. Certificate:

i) Certified that the building(s) has been constructed according to the sanctioned plan and structural design (one set of structural drawings as executed is enclosed) which incorporate the provisions of structural safety as specified in relevant prevailing NBC Part 6 and IS codes standards/Guidelines.

ii) Further certified that water harvesting as well as waste water re-cycling systems have been provided as per the sanctioned building plan.

iii) It is also certified that construction has been one under our supervision and guidelines and adheres to the drawings submitted and the records of supervision have been maintained by us.

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

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

a) Signature of the owner with date

b) Signature of the Architect/Engineer with date

Name in Block letters	Name in Block letter, Licence No.
Address	Address
c) Signature of the Structural Engineer with date (for certificate 1) (as defined in NBC of India)	c) Signature of Supervisor/Engineer/ Group/Engineer with date
Name in Block Letters	Name in Block letters, Licence No.
	Address

Dated :……

Appendix "A-13": Building Use certificate

File No……...

Plan No…….. Dated:…….

Shri/Miss/Sm…….

……

Building Use certificate

With reference to your notice of completion dated……I hereby certify that building as per description below certified plan at Plot No……Block No…… Scheme ……...situated at ……
whose plans were sanctioned vide No……has been inspected with reference to building Byelaws in respect to the structural safety, fire safety, hygienic and sanitary conditions and proposed rainwater harvesting systems inside and, in the surroundings, and is declared fit for occupation and release of regular water and electricity connections. The description of the construction work completed is given as under:

Description of Construction Work Block Wise/Building Wise.

1. Block Building No.
2. Details of Completed Work floor wise.

Commissioner of Authority

Appendix "A-14": Form of Rejection or Compliance in Respect of Completion certificate

File No…….
Dated:……

Sh/Sm…….

……..

Subject: Completion certificate in respect of Plot No……..

Dear Sir / Madam,

1) With reference to your letter dated

2) With reference to your notice of completion dated

3) In continuation of this office letter of even No……..dated on the subject noted above, I am directed to inform you that your case bas been examined and Completion certificate is rejected for the reasons as given below:-

Yours Faithfully,

For…….

……Authority

1……..

2……..

3……..

4……..

Appendix B: Handing Over Land Required for Road Widening

Affidavit/Undertaking
(For Handing Over Land Required For Road Widening)

That I/We have submitted building plans for construction of building on plot No..... Block No.....located at.....to the ..... under Sanction..... of the ..... Act for favour of sanction.

I/We undertake to hand over the land required for road widening as shown on site plan to concerned Authority free of cost as and when asked by.....to do so.

I/We have already understood that the.....is granting sanction on the basis of my undertaking.

If I/We fail to do so, the sanction so accorded shall be revoked and construction done as consequence thereof shall be deemed to have done unauthorizedly and shall be actionable u/s .....of the .....Act.

DEPONENT

Verification

I/We verify that the contents of the above undertaking are correct to the best of my knowledge and belief and nothing material has been concealed there from.

DEPONENT

Appendix C: Proforma to be submitted by the Owner

1. Name, Status, and Address of the applicant

2. Name of the Architect and address with Registration number with Council of Architecture.
3. Details of the property/plot

    a) Location

    b) Boundaries

    c) Area in sq.m. with dimensions (net plot area)

    d) Width of the roads

4. Land use

    a) Master Plan

    b) Zonal Development Plan

    c) Approved Layout Plan

5. Title

    a) Free Hold

    b) Leasehold under notification for acquisition if lease hold permission of lessor for construction under the leasehold condition obtained.

    c) Whether under acquisition, if so give details.

6. Whether the plot/land is affected under the Urban Land (Ceiling & Regulation) Act, 1976. If so, copy of the NCO from the concerned Authority be furnished.
7. Proposals

    a) LandUse

    b) Coverage on each floor with proposed use of the floor space including basement.

    c) FAR

    d) Height

    e) No. of floors.

    f) Envelope controls/set backs

g) Parking norms

Encl:

1. Ownership title
2. Permission to construct under the lease
3. Permission under the Land Ceiling Act, 1976.
4. Site/Location Plan
5. Tentative proposals to explain the scheme

Signature of Architect

Name.....

Reg. No..... Address.....

Signature of the owner

Name..... Address.....

Appendix D: Penal Action for violation of provisions of Master Plan, Zonal Plans and Building Byelaws.

(A) Non-Compoundable Items

Any deviations except those set-in para "AA" hereunder, from the maximum, minimum prescribed limits regarding:

1. Coverage,
2. F.A.R.
3. Setbacks,
4. Open spaces,
5. Total height of the building
6. No. of floors,
7. No. of DUs & density
8. Parking norms,
9. Light and Ventilation provisions,
10. Land Use
11. Access road requirement
12. All other provisions of these Byelaws except item given in para 'B' below shall not be compounded/regularized and shall have to rectified by altering/ demolition at the risk and cost of owner. Besides this any other action as per terms and conditions of lease and provisions of Act shall proceed.

(A.A) Compounding Excess Coverage/FAR

1. Deviations in the coverage/FAR to the extent of 5% of the permissible coverage/FAR or 13.5 sq.m. whichever is less in building(s) use premises, other than building(s) use premises where 100% ground coverage and fixed height is allowed as per Architectural control forming part of comprehensive schemes like District Centre, Community Centres, Cluster Court Housing etc. may be compounded after levying penalty at the following Rates:

   Rates of excess coverage/floor area:

   Up to 5% of excess coverage/FAR a one-time compounding fee equivalent to the land rated in the concerned locality applicable at the time of the application for compounding.

2. For excess coverage / FAR for above 5%. Any excess coverage above 5% or 13.5 sq.m whichever is applicable would be liable to demolish to that extent.
3. Compounding at set back Infringements

   The infringements of the setbacks maximum to the extent of 30 cm (1 ft.) may be compounded by way of levying compounding fee at the following rates:

Infringements	**Residential Buildings**	**Non-Residential Buildings**
Up to 15 cm (6 inch)	Rs. 1000 per sq.m. of area infringing the set back	Rs. 2500 per sq.m. of area infringing the set back

Above 15 cm (6 inch)	Rs. 2000 per sq.m of area infringing the set back	Rs. 5000 of area of the infringing the set back

(B.B) Compoundable Items

If a building or part thereof has been constructed unauthorized, i.e. without obtaining the requisite building permit from the concerned Authority as required under the building Byelaws, the same shall be compounded at the following rates provided the building or part thereof so constructed otherwise conforms to the provisions contained in the Building Byelaws and Master/Zonal Plan regulations. For this party shall have to submit the request for building permit in the prescribed procedure.

Rates:

a) Rs. 50 per sq.m. of the covered area constructed unauthorized in residential building up to 500 sq.m. Plot size.
b) Rs. 100 per sq.m of the covered area constructed unauthorized in the building categorized below:

- All Govt. Public and Semi-Public and Utility Buildings.
- Religious, Institutional and Educational Buildings

c) Rs. 250 per sq.m. of the covered area constructed unauthorizedly

- Residential building above 500 sq.m. plot size, Group Housing & Guest Houses.
- Industrial Buildings:
- Storage buildings (underground or above ground)

d) Rs. 1000 per sq.m. of covered area constructed unauthorizedly.

- Cinema and Theatre Building.
- Petrol Pumps (Filing / Service Station)
- Hazardous Buildings.
- Commercial / Business Buildings

1. The buildings not covered specifically under the above categories shall be compounded as decided by the Authority, considering merits of each individual case.

2. Items which are exempted from the calculations of the coverage and FAR e.g. canopy, basement if used for parking and services, loft, etc. but constructed unauthorizedly without obtaining prior permission from the Authority, but within the permissible limits shall also be compounded/regularized at the rate prescribed above.

3. Deviations of the building Byelaws other than specified in (A) (Non- compoundable)
Deviation up to the maximum extent of 10% from the maximum/minimum prescribed limit (as prescribed by the building Byelaws) shall be compounded at the following rates:

   a) In case of deviations of areas of various components of the building, the rate of penalty will be @ Rs. 50/- per 1% deviation.

b) For deviations in terms of height the penalty shall be @ Rs. 50/- per 1% of deviation for every 10 sq.m. or part thereof of the affected area.
c) Deviations from the prescribed limit of width, length, penalty shall be @ Rs. 50/- per 1% of the deviation for every 10 sq.m. or part thereof of the affected area.

The Authority if satisfied that there are other deviations of general nature, which are not described above, may fix rates for compounding such deviations. However, there shall be no further relaxation in FAR and coverage over that permitted above.

Revision of all fees and charges under consideration for compounding and regularization shall be revisited by the Authority from time-to-time based on the Schedule of rates.

Appendix E: Technical Aspects and Options of Rainwater Harvesting in Built forms and open spaces

Introduction

The storage of rainwater on surface is a traditional technique and the structures used were underground tanks, ponds, check dams, weirs etc. Recharge to ground water is a new concept of rainwater harvesting and the structures generally used are: -

a) **Pits:** Recharge pits are constructed for recharging the shallow aquifer. These are constructed 1 to 2m, wide and to 3m. deep which are back filled with boulders, gravels, coarse sand.
b) **Trenches:** These are constructed when the permeable stream is available at shallow depth. Trench may be 0.5 to 1m. wide, 1 to 1.5m deep and 10 to 20m long depending up availability of water. These are back filled with filler materials.
c) **Dug wells:** Existing dug wells may be utilized as recharge structure and water should pass through filter media before putting into dug well.
d) **Hand pumps:** The existing hand pumps may be used for recharging the shallow/deep aquifers, if the availability of water is limited. Water should pass through filter media before diverting it into hand pumps.
e) **Recharge wells:** Recharge wells of 100 to 300 mm. diameter are generally constructed for recharging the deeper aquifers and water is passed through filter media to avoid choking of recharge wells.
f) **Recharge Shafts:** For recharging the shallow aquifer which are located below clayey surface, recharge shafts of 0.5 to 3 m. diameter and 10 to 15 m. deep are constructed and back filled with boulders, gravels & coarse sand.
g) **Lateral shafts with bore wells:** For recharging the upper as well as deeper aquifers lateral shafts of 1.5 to 2 m. wide & 10 to 30 m. long depending upon availability of water with one or two bore wells are constructed. The lateral shafts are back filled with boulders, gravels & coarse sand.
h) **Spreading techniques:** When permeable strata start from top then this technique is used. Spread the water in streams/Nalas by making check dams, nala bunds, cement plugs, gabion structures or a percolation pond may be constructed.

Appendix F: Number and Type of Lifts Required for Different Occupancies and Space for Electrical Installations

1. The number and type of lifts required depending on the capacity of lift, desired speed nature of operation are as given in table below:

TableF-1: Number and types of lifts for non-residential Multi-storeyed Building

Sl. No.	No. of floors	Capacity of lifts in person	Speed m/s	No. of persons that can be carried by a lift							
				In 6 min		In 30 min.		In 50 min.		In 60 min.	
				Manually Operated	Automatic	Manually Operated	Automatic	Manually Operated	Automatic	Manually Operated	Automatic
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
1	7	6	0.6-0.75	17	-	102	-	170	-	204	-
2	7	8	0.6-0.75	22	-	132	-	220	-	-	-
3	7	10	0.6-0.75	26	-	156	-	260	-	312	-
4	7	10	1.0	30	-	180	-	300	-	360	-
5	7	13	1.0	37	-	122	--	370	-	444	-
6	11	6	0.6-0.75	11	-	70	-	115	-	140	-
7	11	8	0.6-0.75	15	-	90	-	150	-	180	-
8	11	10	0.6-0.75	18	-	108	-	180	-	216	-
9	11	13	0.6-0.75	22	-	132	-	220	-	264	-
10	11	10	0.6-0.75	21	-	126	-	210	-	252	-
11	11	10	1.5	24	-	144	-	240	-	288	-
12	11	13	1.5	28	-	156	-	260	-	312	-
13	11	13	1.5	32	-	180	-	300	-	-	-
14	16	10	1.0	17	-	100	126	170	210	-	252
15	16	13	1.5	20	24	120	145	200	240	248	290
16	16	13	1.5	23	30	138	180	230	300	-	360
17	16	16	1.5	25	33	150	198	250	330	300	356
18	21	10	1.5	18	32	108	132	180	220	214	264
19	21	13	1.5	21	26	126	156	210	250	250	312
20	21	14	1.5	23	28	138	168	230	280	-	-

Note-1:

a) For all non-residential buildings, the traffic cleared in 50 minutes is considered adequate and is approved by Authority. As such for calculation the number of lifts required, the rate

of the clearance of traffic in column 9 and 10 and the population may be taken into consideration.

b) In addition to total number of lifts required as above, provision of one lift of the same capacity may be considered to serve as stand-by.

Note-2: *The population may be worked out on the basis of useful carpet area which the person occupy (excluding area of Verandah, Lobbies, Halls, Passages, Lavatory blocks, etc.)*

Note-3: *The population on ground and first floor may not be taken into consideration since these floors are not generally served by lifts.*

Note-4:

0.75 m per sec.	*Equivalent to 150 ft. per Min*
1.00 m per sec.	*Equivalent to 200 ft. per Min.*
1.5 m per sec.	*Equivalent to 300 ft. per Min.*

Note-5: *The height of buildings for lift installation i.e. the travel on the lift presumed in the above statements is as below:*

7 floors	*21.0 m.*
11 floors	*33.0 m.*
16 floors	*48.0 m.*
21 floors	*64.0 m.*

TableF-2: Number and types of lifts for Residential Building

Sl. No.	No of Floors	No	Passenger unit capacity Persons	Speed in m/s	Landing Gate Type	Central System	Service Lift No.	Capacity Persons	Type of Gate	Central System
1	5 to 8	2	6	0.0 to 0.5	*	Automatic push button operation both from car and landing	-	-	-	-
2	9 to 12	2	8	0.6 to 1	*	--do--	1	8	-	Push button car handle switch control
3	11 to 13	2 1	8 6	0.6 to 0.74	* Power operated doors	--Do--and without collection system --do--	1	8	-	--do--
4	13 to 19	2 2	8 8	1 1	- Power operated doors	--do--	1	8	-	--do--

** For buildings more than 15 m. in height collapsible gates shall not be permitted. (see bye-law No. 7.9.1(f))*

Appendix F-1

The dimensions and relevant information for lift installations like lift well, pit depth, machine room, clearance from top floor landing to machine room flooring is given in table below:

TableF-3: Dimensions and required information for Lift Installation in Building

Carrying Capacity of lift (persons) Number	Load (kg)	Lift Speed	Dimension of Lift well front depth (In cm.)		(Cm)	Leading Pit Entrance (Cm)	Dimension of Machine Room			Clearance from top floor landing to machine room flooring cm	Imposed load in tones on top of lift well due to installation. It may be noted that figures do not include weight of the machine from floors and well, etc.
1	**2**	**3**	**4**	**5**	**6**	**7**	**8**	**9**	**10**	**11**	**12**
4	272	Up to & including 1 m/s	175	115	70	140	230	275	245	450	6.5
6	408	--do--	195	135	80	140	230	335	275	450	7.0
8	544	Up to & including 1 m/s	200	170	80	150	245	395	275	450	8.5
10	680	Up to & including 1.5 m/s	225	170	90	150	245	395	305	470	10.5
13	884	--do--	235	188	90	150	245	425	335	470	13.0
16	1088	--do--	255	205	105	150	245	520	335	480	15.0
20	1360	--do--	255	220	105	150	245	520	335	480	15.0

Note:

i) All lift well dimensions are minimum clear finished plumb requirements.

ii) Where more than one lift is located in the lift well, extra width of 10 cm. Separator beam should be provided.

iii) 1 m/s = 200 ft./min.

iv) The height. of landing entrance should be 210 cm. (about 7 ft.) for all lifts.

Appendix G: Guidelines for Mitigation of Effects of Electro Magnetic Radiation in Built Spaces

INTRODUCTION

Electromagnetic radiations are energy waves having time varying electric and magnetic fields at rigHt. angles to each other and are predominantly used for wireless communication**.**

Although, **Electromagnetic Fields** (EMF) occur in nature and thus have always been present on earth (Sun is the biggest source of natural EMR), nevertheless their occurrence has become more pronounced due to rapid advances of wireless technology in the communication sector.

The twentieth century witnessed, steady rise of environmental exposure to man-made sources of EMF due to increasing electricity demand, ever-advancing wireless technologies and changes in work practices and social behaviour. The unprecedented growth in communication industry in recent years has also caused an exponential rise in electromagnetic radiations in the envelopes surrounding all living habitats.

Human beings are thus exposed to a complex mix of electric and magnetic fields at many different frequencies, at home and at work. EMF (Electro Magnetic fields) can be broadly divided into-

1. *Low-frequency electromagnetic fields*- the common sources of which include power lines, household electrical appliances, and
2. *High frequency electromagnetic fields*: the main sources of which are radar, radio and television broadcasting, mobile telephones and their base stations, induction heaters and anti-theft devices etc.

Given below is the chart of Electromagnetic spectrum which highlights various ranges of frequencies and the equipment which work in these ranges of frequencies:

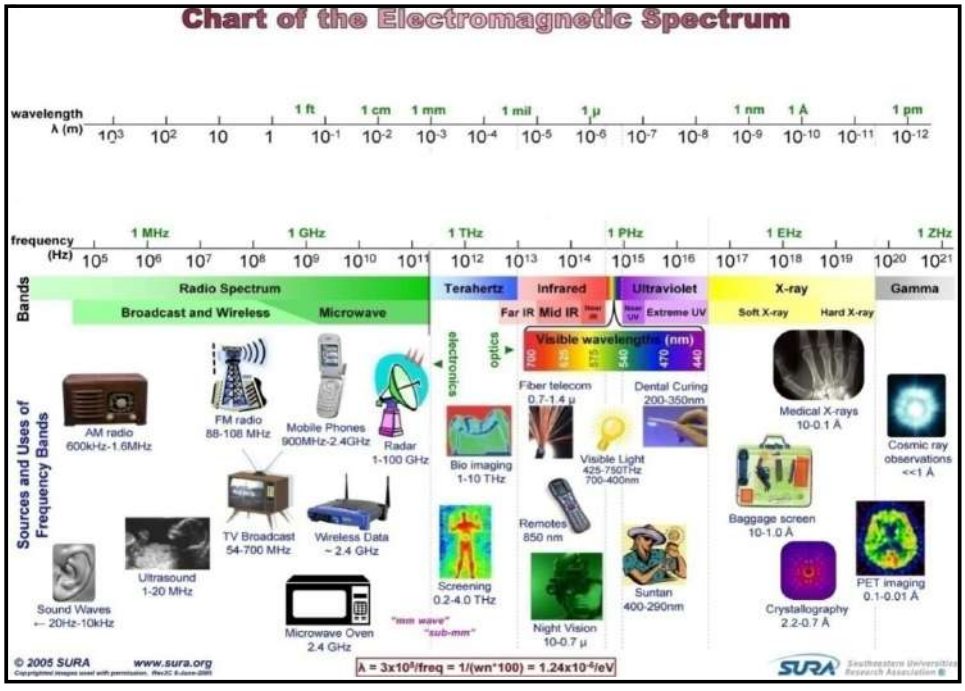

Figure G-1

Therefore, there is an urgent need to adopt precautions for living beings from any effects of electromagnetic radiations at our work places as well as at our living spaces.

ELECTROMAGNETIC RADIATIONS: EFFECTS OF EXPOSURE

The effects of electromagnetic radiation upon living cells, including those on humans, depend upon the frequency as well as the penetrating power of the radiation.

Initially, it was believed that low frequency fields were too weak to cause heating to a significant level and thus do not have any biological effect. There have been a number of epidemiological studies for a relationship between cell phone use and consequent health threats that have been largely inconclusive. Thus, it can be concluded that their effect is not very prominent although significant. However, there are sufficient evidences to suggest the existence of complex biological effects of weaker *non-thermal* electromagnetic fields, and modulated RF and microwave fields. World Health Organization has classified radiofrequency electromagnetic radiation as a possible group 2b carcinogen (possible weaker threats).

In case of low-frequency radiations (radio waves to visible light) therefore, depending upon the power of the radiation heating effects are caused due to absorption of radiation by the living cells. These thermal effects increase with the frequency of radiation as penetration of radiation into the organism increases (for example microwaves penetrate more than infrared rays).

At higher frequencies (visible and beyond) however, the individual photons of the radiation carry enough energy individually and thus directly or indirectly can damage biological molecules. All frequencies of UV radiation have therefore been classified as Group 1 carcinogens by the World Health Organization. In this context it is a significant fact that ***Ultraviolet radiation from sun exposure*** is the primary cause of skin cancer. Thus, at such frequencies electromagnetic radiations cause much more damage to biological systems than simple heating. This is most obvious for the "extreme" Ultraviolet, X-ray and Gamma radiations, which are referred to as ionizing radiations due to the ability of photons of this radiation to produce ions and free radicals in materials which include living tissues as well. Since such radiation can produce severe damage to life at powers that produce very little heating, it is considered much more dangerous than the rest of the electromagnetic spectrum.

Health risks from Electromagnetic radiations can be numerous depending upon the power and frequency of radiations.

From the perspective of prevention of any health effects of Electro Magnetic Radiations there is a need of suitable precautions, since it is not possible to keep away from them owing to the advent of wireless communication technology which is based upon electromagnetic waves of higher frequencies besides many other applications like microwave, remote controlled toys, cordless phones, TV remotes, etc.

Guidelines for Buildings and Built forms mitigating effects of EMR

While planning a building or a residential complex/ township, it is most desirable to list all probable equipment/ appliance emitting *Electromagnetic Radiations* in order of ascending/descending intensities. These should also be categorized as per *indoor and outdoor* emissions. Their placement in the built space and surroundings can then be decided based on certain premises.

The most fundamental principal in this regard is that the effect of Electromagnetic Radiation decreases with increase in distance from radiation emitting source. It is thus advisable-

- To keep a safe distance from working electric and electronic equipment.
- Minimize the use of all equipment working on wireless technology like cordless phones, Wi-Fi, Bluetooth and the cell phones.
- Disconnect electric and electronic equipment from the power supply when not in use, especially in areas of prolonged occupancy.

Further, the list of equipment/appliances generally used in and around working/living space is placed below for appreciation of EMR radiation:

1. RF Sources i.e. the transmitting towers such as AM/FM radio towers, TV towers, cell phone towers transmitting EMR continuously.
2. Cell phone which is ON but not in use also radiates and Wi Fi (Wireless Internet)
3. Cordless phone
4. Wi-max
5. Other wireless devices
6. CFL (Compact Florescent Light) bulbs
7. Neighbouring EMR sources that are located next to shared walls.
8. Computers and laptops
9. Air conditioning systems
10. Refrigerators
11. Electrical heating systems/ Microwave Ovens
12. Power generators and voltage converters
13. Stereo and home entertainment systems
14. Fans

This list is only indicative and not exhaustive and there can be additions to it.

From the view point of effective communication, providing of mobile towers in a township/ office complex is an essential requirement and thus should be carefully planned.

The mobile tower generates and transmits high frequency radiations; so more care is needed for their placement. It should be ensured that the building identified to mount the tower should be the tallest in the vicinity and should not have adjoining buildings on which proposed or existing habitable floors are within close-range.

OR

Mobile Tower should be mounted on the highest sanctioned building in an area.

In regular practice that many cellular operators mount their antenna on a single tower along with other operators which increase the effects of EMR manifolds and should thus be avoided as far as possible. Else height. of the tower should be increased.

Besides, Substation Equipment like Transformer, DG set etc. are also to be provided for fulfilling the bulk power requirement of the building and should be suitably placed for electrical safety as well as for mitigating effects of EMR. However, as these are low frequency devices, their placement is too decided more from electrical safety point of view than EMR.

In addition, various light. sources inside the living/working spaces, UPS, servers, various other equipment running on Wi-Fi may also emit EMR. Hence their placement inside the building also needs careful consideration.

Thus, in a built environment of considerable human occupancy, following broad guidelines should be adopted for placement of utility equipment/ appliances serving the building as a whole.
Equipment external to the building: Mobile Towers

Figure G-2

Location of communication towers is governed by radio frequency system adopted and as far as possible cellular operator should try to avoid residential areas. However, where it is not possible to avoid these, they should request for permission from the appropriate authority for installation on roof top of the tallest existing buildings.

i. First preference should however, be given to the location of tower in the commercial areas or other public areas.
ii. Where it is not possible to avoid the location of this tower in residential, area possibility should be explored to locate them in green belts within residential sectors or open spaces/community buildings in the sectors.

Where it is not possible to find such suitable space mentioned at Sr. No. (ii) above, tower should be permitted on the roof top of residential buildings subject to the condition that a structural safety certificate from a certified Structural Engineer has been obtained.
Such towers should not be permitted on occupied buildings, however if inevitable, a Steel/ Metal frame of 6 m height over the roof level of the last habitable floor of the building should be provided to accommodate the tower and its associated units.
Structural stability of the said building should be calculated with the overall loading of such metal steel frames mounted atop and "Structural stability certificate" should be submitted by a registered structural engineer with the application for the permission of building pre-design) or installation (post-design).
Transformers: In addition to the fenced *ionized area* around a transformer, neighbourhood level congregation activity areas should not be planned/permitted within 3 m of the fence.
Diesel Generators: The location of the Generator within the Plot premises should not be adjacent to any habitable / community / recreational activity within a radius of 3m.
Indoor equipment/Appliances:
Electrical Switchboards: Unless otherwise amended by *Barrier-free access regulations to* such fixtures, they should be mounted as per existing stipulations laid down in CPWD General Specifications for Electrical Works- Part I Internal2013.
Wireless Routers: Within the housing unit, the vertical mounting height of the router should be not less than 4 feet and should be kept in the Drawing / Dining zone and not within the zones of longer period of occupancy e.g. Bedrooms.

In non – residential units i.e. office spaces these routers should be kept as much away as possible and should be switched off when not in use.

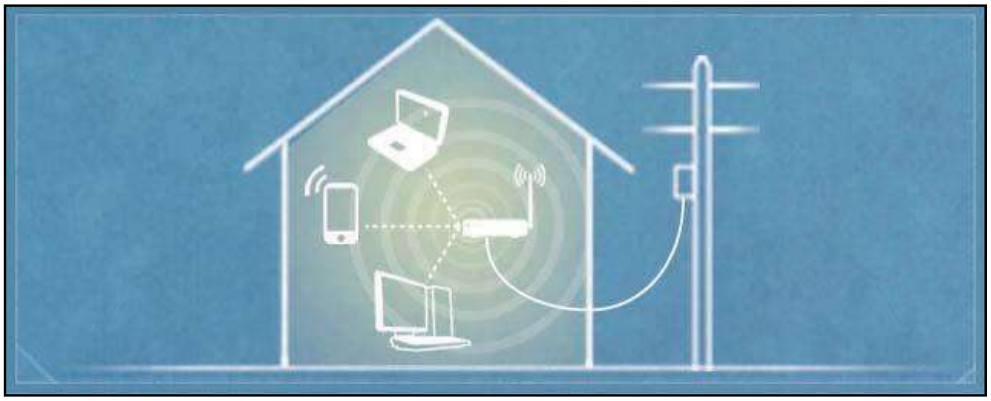

Figure G-3

Server Room: Occupied Work-stations should be at least 5 m away from the server room or associated equipment. If people are sitting in the same room, they must wear protective gear and should not have prolonged exposure.

Computer: Should be placed in the most isolated place in a dwelling unit, while in an office space, it should not be less than 2.5 feet away from the person using it.

UPS: Should also be placed in the most isolated place in a dwelling unit, while in an office space it should not be less than 2.5 feet away from the person using it.

Mobile Phone: It usually remains with the user all the time. The only time it is kept away is when it is being charged. Thus mobile should be charged from a remotely located power point. It is thus preferable to provide a charging station in almost every working/living space at a location, as far as permissible from living space considerations.

Light sources: Usually, sun as a source of natural light is the biggest source of electromagnetic radiations. However, the atmosphere surrounding us provides a natural shield from electromagnetic radiations. In this context, the light sources used inside a living/working space should be given careful consideration from the point of view of Electromagnetic Radiations. Many luminaries available presently, like Fluorescent tubes, compact fluorescent lamps, LED lights etc. are used in working / living spaces. So, their use should not only be determined from the point of view of energy conservation but also from the point of view of Electromagnetic Radiations. For this purpose, recommendations of the manufacturers should serve as proper guidelines.

Table G—1: below summarizes appropriate placement of equipment's /appliances in the built environment:

Sr. No	Equipment	Minimum safe distance
1	Mobile Towers	6 m height over the roof level of the last habitable floor of the building.
2	Transformers	3 m
3	Electrical Switchboards	No Change
4	Wireless Routers	4 feet(1.2 m)
5	Server Room	5 m
6	UPS	2.5 feet (0.75 m)

7	Diesel Generators	Radius of 3 m
8	Mobile Phone	2 feet(0.6 m)
9	Computer	2.5 feet (0.75 m)
10	Laptop	2.5 feet(0.75 m)
11	UPS	2.5 feet (0.75 m)
12	Wireless Router modem	4 feet(1.2 m)
13	Server room	5 m away from workstations

Note: Intensity of Electromagnetic Radiations decreases with increase in distance from the radiation source. So as to minimize exposure maximum possible distance should be kept.