

**Kalinga Nagar Development
Authority Planning and Building
Standards Regulations, 2017**

February-2017

Notification

No. 721/KNDA

Date: 21/02/2017

The following draft regulations which the Kalinga Nagar Development Authority propose to make in exercise of the powers conferred by section 124 of the Odisha Development Authorities Act, 1982 (Odisha Act 14 of 1982) and in supersession of all the regulations of Bye-laws, orders, notifications and instructions issued in this connection except as respects things done or omitted to be done before such supersession and with the previous approval of the State Government is hereby published as required by sub-sections (1), (2) and (3) of section 125 of the said Act for information of all persons likely to be affected thereby and the notice is hereby given that the said draft will be taken into consideration on or after the expiry of the period of fifteen days from the date of publication of this notification in the Odisha Gazette.

Any objection or suggestion which may be received by the Secretary to Kalinga Nagar Development Authority from any person in respect of the said draft before expiry of the period so specified will be considered by the Development Authority.

Draft

PART I: DEFINITIONS

1. Short title, and Commencement.-

(1) These regulations may be called the Kalinga Nagar Development Authority (Planning and Building Standards) Regulations, 2017.

(2) They shall extend to the whole area within the jurisdiction of the Kalinga Nagar Development Authority.

(3) They shall come into force on the date of their publication in the Odisha Gazette.

2. Definitions.- (1) In these Regulations, unless the context otherwise requires:

- (a) "Access" means a clear approach to a plot or a building;
- (b) "Act" means the Odisha Development Authorities Act, 1982 (Act 14 of 1982);
- (c) "Addition/ Alteration" means change from one occupancy to another, or a structural change, such as addition to the covered area or height or the removal of part of a building or construction or cutting into or removal of any wall, partition, column, beam, joist, floor or other support, or a change to the fixture of equipment of the building;
- (d) "Advertising Sign" means any surface or structure with characters, letters or illustrations applied there-to and displayed in any manner whatsoever outdoors for the purpose of advertising or giving information or to attract the public to any place, person, public performance, article, or merchandise, and which surface or structure is attached to, forms part of, or is connected with any building, or is fixed to 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 Authority;
- (e) "Agricultural use" means use of land for the purpose of agriculture, horticulture, sericulture, animal husbandry, poultry farming, plant nursery, piggery, dairy farming, vegetable farming and any activity related to agriculture or milk chilling plant;
- (f) "Air-Conditioning" means the process of treating air so as to control simultaneously its temperature, humidity, cleanliness and distribution to meet the requirement of conditioned space;
- (g) "Air Port Reference Point" means a designated point, which is established in the horizontal plane at or near the geometric centre of the landing area;
- (h) "Annexure" means an Annexure appended to these regulations;
- (i) "Apartment building" means a building having more than four dwelling units constructed in one block only;
- (j) "Apartment or flat" means a dwelling unit in building;

- (k) "Applicant" means the person who is the owner of the land or building or has title to a land or building and includes,
- a. an agent or trustee who receives rent on behalf of the owner;
 - b. an agent or trustee who receives rent or is entrusted with or is concerned with any building devoted to religious or charitable purpose;
 - c. a receiver, executor or administrator or a manager appointed by any Court of competent jurisdiction to have the charge of or to exercise the rights of the owner; and
 - d. a mortgagee in possession;
- (l) "Approved" means approved by the Authority;
- (m) "Area" in relation to a building means the superficies of a horizontal section thereof made at the plinth level inclusive of the external walls and of such portions of the party walls as belong to the building;
- (n) "Art Commission" means the Commission constituted under sub-section (1) of section 88 of the Act;
- (o) "Balcony" means a projection to serve as passage or sit out place including a hand rail or balustrade;
- (p) "Basement or cellar" means lower storey of a building, below or partly below the ground level;
- (q) "Basti Area" means an area declared as such under a Master Plan and in the absence of such declaration, any area comprising old settlements covering such extent of lands as may be determined by the Authority in consultation with the concerned Local Body;
- (r) "Basti Plot" means a plot having a width ranging between 4.0 meters (m) and 6.3 m, the depth being more than three times the width, and located in a basti area;
- (s) "Building" means any structure or erection or part of a structure or erection which is intended to be used for residential, commercial, industrial or any other purpose whether in actual use or not, and in particular:
- (i) "Assembly Building" refers to a building or part thereof, where groups of people not less than 50 congregate or gather for amusement, recreation, social, religious, patriotic, civil, travel and similar purposes, for example, theatres, motion picture houses, assembly halls, auditoria, exhibition halls, museums, skating rinks, gymnasiums, restaurants, places of worship, dance halls, club rooms, passenger stations and terminals of air, surface and marine public transportation services, recreation piers, stadia, Baarat Ghar and Kalyan Mandap etc.;
 - (ii) "Commercial Building" refers to a building or part of a building, which is used for transaction of business, keeping of accounts and records or for similar purposes and includes Banks and Commercial Offices and Corporate offices.

It shall include mercantile buildings like shops, stores, market display and sale of merchandise either in wholesale or retail, or offices, storage or services facilities incidental to the sale of merchandise and includes Cinema Halls, Petrol Pumps, Hotels, Restaurants, Lodge-cum-guesthouses and Dharma Kantas etc.;

- (iii) "Educational Building" refers to a building exclusively used for a school or college, recognized by the appropriate Board or University, or any other Competent Authority involving assembly for instruction, education or recreation incidental to educational use, and including a building for such other uses as research institution. It shall also include quarters for essential staff required to reside in the premises, and building used as a hostel captive to an educational institution whether situated in its campus or outside;
- (iv) "Hazardous Building" refers to a building or part of a building which is used for the storage, handling, manufacture or processing of highly combustible or explosive materials or products which are liable to burn with extreme rapidity and or producing poisonous fumes, or the storage, handling, manufacturing or processing of which involves highly corrosive, toxic, obnoxious alkalis, acids or other liquids, gases or chemicals, producing flame, fumes and explosion, poisonous irritant or corrosive gasses and for the storage, handling or processing of any material producing explosive mixture of dust or which result in the division of matter into fine particles subject to spontaneous ignition. This shall include petrol filling stations;
- (v) "Industrial Building" refers to a building or part of a building in which products or materials of all kind and properties are fabricated, assembled or processed such as assembly plants, laboratories, power plants, smoke houses, refineries, gas plants, mills, dairies or factories;
- (vi) "Institutional Building" refers to a building constructed by Government, Semi- Government Organizations or Registered Trusts, buildings used for medical or other treatment, Research and Training Centre, Public or Semi Public offices, Hospitals, Dispensaries, nursing homes, poly clinics and Health Centers or for an auditorium or complex for cultural and allied activities or care of orphans, abandoned women, children and infants, convalescents, destitute or aged persons and for penal or correctional detention with restricted liberty of the inmates ordinarily providing sleeping accommodation and includes dharamshalas, hospitals, sanatoria, custodial and penal institutions such as jails, prisons, mental hospitals, houses of correction, detention and reformatories etc.;
- (vii) "Mixed Land Use Building" refers to a building partly used for non-residential activities and partly for residential purpose;

- (viii) "Multi-Level Car Parking Building" means a building partly below ground level having two or more basements or above ground level, primarily to be used for parking of cars, scooters or any other type of light motorized vehicles;
- (ix) "Residential Building" refers to a building in which sleeping accommodation is provided for normal residential purpose with or without cooking or dining or both facilities and includes one or two or multi-family dwelling dormitories, apartment houses, flats and hostels;
- (x) "Special Building" means all buildings like assembly, industrial, buildings used for wholesale establishments, hotels, hostels, hazardous, mixed occupancies with any of the aforesaid occupancies and centrally air conditioned buildings having total built up area exceeding 500 square meters (sqm.);
- (xi) "Storage Building" refers to a building or part of building used primarily for the storage or sheltering of goods, storehouses, hangers, terminal depot, grain elevators, barn or stables;
- (t) "Building Accessory" means a subordinate building, use of which is incidental to that of a principal building, on the same plot such as garage, coal or fuel shed, peons, chowkidars, or domestic servants quarters, etc.;
- (u) "Building Height" means the vertical distance measured in the case of flat roofs, from the average level of the center line of the adjoining street to the highest point of the building adjacent to the street; and in the case of pitched roofs, up to the point where the external surface of the outer wall intersects the finished surface of the sloping roof and in the case of gables facing the road, the midpoint between the eaves level and the ridges:

Explanation - If the building does not abut on a street, the height shall be measured above the average level of the ground around and contiguous to the building. Architectural features serving no other function except that of decoration shall be excluded for the purpose of measuring heights. The height of the building shall be taken upto the terrace level for the purpose of fire safety requirement.
- (v) "Building Envelope" means the horizontal spatial limits up to which a building may be permitted to be constructed on a plot;
- (w) "Building line" means the line up to which the plinth of a building adjoining a street or an extension of a street or on a future street may lawfully extend and includes the lines prescribed in any Master plan in operation for any area under the jurisdiction of the Authority or specification indicated in any Planning or Development Scheme, or in these Regulations;
- (x) "Cabin" means a non-residential enclosure constructed of non-load bearing partitions;

- (y) "Canopy" means cantilevered projection at lintel level over any entrance, provided that
 - (i) It shall not project beyond the plot line.
 - (ii) It shall not be lower than 2.3 m or 7' 6" when measured from the ground.
 - (iii) There shall be no structure on it and the top shall remain open to sky.
- (z) "Carpet Area" means the net covered usable floor area of an immovable property, excluding the area covered by the walls and common area;
- (aa) "Chajja"/"Sun-Shade" means a sloping or horizontal structural overhang, usually provided for protection from sun and rain or for architectural considerations at lintel level;
- (ab) "Chimney" means an upright shaft containing and encasing one or more flues provided for the conveyance to the outer air of any product of combustion; resulting from the operation of any heat producing appliance or equipment employing solid, liquid or gaseous fuel;
- (ac) "Combustible materials" means a material, which burns or adds to a fire when used for combustibility in accordance with good practice;
- (ad) "Conversion" means the change of occupancy to another occupancy or change in building structure or part thereof resulting in change of space or use requiring additional occupancy certificate;
- (ae) "Corner plot" means a plot at the junctions of and fronting on two or more intersecting streets, the frontage would be on the street having larger width. In cases, where the two streets are of same width, then the smaller side of the plot abutting the street shall be treated as the front;
- (af) "Cornice" means a sloping or horizontal cantilevered projection at lintel level over any entrance or external wall to provide protection from sun or rain;
- (ag) "Courtyard" means a space permanently open to sky, with or without pergola, enclosed fully or partially by buildings and may be at ground level or any other level within or adjacent to a building;
- (ah) "Coverage" means percentage of covered area on the ground floor which is not open to sky excluding the chajja/ roof projections up to 0.75 m width overhanging the open space to the total plot area;
- (ai) "Covered Area" means in respect of ground floor, area covered immediately above the plinth level by the building but does not include the open space covered by:
 - (i) garden, rockery, well and well-structures, rainwater harvesting structures, plant nursery, water-pool (if uncovered), platform round a tree, tank, fountain, bench, chabutara with open top unenclosed on sides by walls, boundary wall, swing, and area covered by chhajja without any pillars etc., touching the ground;

- (ii) 'drainage culvert conduit', catch-pit, gully pit, inspection chamber, gutter and the like; and
- (iii) compound wall, gate, slide/ swing door, canopy, and areas covered by chajja or similar projections and staircases which are uncovered and open at least on three sides and also open to sky;
- (iv) Watchmen booth, pump house, garbage shaft, electric cabin or substations, and such other utility structure meant for the services of the building under construction;
- (aj) "Cul-de-sac" means such means of access having length up to 150 m with an additional turning space not less than 81 square meters in area having no dimension less than 9 m;
- (ak) "Damp-Proof Course" means course consisting of some appropriate water proofing material provided to prevent penetration of dampness;
- (al) "Detached building" means a building whose walls and roof are independent of any other building with open spaces on all sides;
- (am) "Deviation" means any construction made in departure from the approved plan by way of alterations or additions, modifications in the total floor area, coverage, floor area ratio (FAR), setbacks, height, parking space, provision of public utilities etc.;
- (an) "Drain" means a line of pipes including all fittings and equipment such as manholes, inspection chamber, traps, gullies and floor traps, used for the drainage of a building or a number of buildings, or yards appurtenant to the buildings within the same cartilage and includes open channels used for conveying surface water;
- (ao) "Drainage" means the removal of any liquid by a system constructed for purpose;
- (ap) "Dwelling Unit or Tenement" means an independent housing unit with facilities for living, cooking and sanitary requirements;
- (aq) "Enclosed stair-case" means a stair-case, separated by fire resistant walls from the rest of the building;
- (ar) "Encroachment" means an act to enter into the possession or rights either of permanent or temporary nature on a land or built up property of local body or state/ central Government;
- (as) "Existing Building" means a building, structure or its use as sanctioned/ approved/ regularized by the Competent Authority, existing before the commencement of these Regulations;
- (at) "Existing Use" Use of a building or structure existing authorisedly with the approval of the Authority before the commencement of these Regulations;
- (au) "Exit" means a passage, channel or means of egress from any building, storey or floor area to a street or other open space of safety;

- (av) "External Wall" means an outer wall of a building even though adjoining to a wall of another building and also means a wall abutting on an interior open space of a building;
- (aw) "EWS House" means a house or dwelling unit intended for Economically Weaker Sections with maximum built up area of 32 sqm. or as decided by the State Government;
- (ax) "EWS Plot" means a residential plot intended for Economically Weaker Sections having maximum plot area of 48 sqm. or as decided by the State Government;
- (ay) "Farm House" means a plot of land including construction thereon in the area designated for agricultural use by the Authority;
- (az) "Farm Shed" shall include permanent or temporary structures erected in the plot used for farmhouse;
- (ba) "Fire Alarm System" means an arrangement of call points or detectors, sounders and other equipment for the transmission and indication of alarm and sometimes used as signals for testing of circuits and whenever required for the operation of auxiliary services. This device may be work automatically or manually to alert the occupants in the event of fire;
- (bb) "Fire Lift" means lift specially designed for use by fire service personnel in the event of fire;
- (bc) "Fire Proof Door" means a door or shutter fitted to a wall opening, and constructed and erected with the requirement to check the transmission of heat and fire for a specified period;
- (bd) "Fire Resisting Material" means the material, which is normally used for fire resistance;
- (be) "Floor" means the lower surface in a storey on which one normally walks in a building;
- (bf) "Floor Area or Built Up Area" means the total covered area on all floors of a house;
- (bg) "Floor Area Ratio (FAR)" means the quotient obtained by dividing the total covered area on all floors with the area of the plot excepting areas specifically exempted under these regulations, by the total area of the plot;
 - a. "Base FAR" The Base FAR shall be as defined in Odisha Transfer of Development Rights Rules, 2015 (revised time to time);
- (bh) "Form" means the Form appended to these regulations;
- (bi) "Footing" means the part of a structure, which is in direct contact with the ground and transmitting loads to the ground;
- (bj) "Foundation" means that part of a structure, which is indirect contact with and meant for transmitting loads to the ground;

- (bk) "Gallery" means an intermediate floor or platform projecting from a wall of an auditorium or a hall providing extra floor area, additional seating accommodation, etc. It shall also include structures provided for seating in stadia;
- (bl) "Garage-Private" means a building or a portion thereof designed for parking of privately owned motor vehicles or any other vehicles;
- (bm) "Garage-Public" means a building or a portion thereof designed or used for repairing, servicing, hiring, selling or parking of motor driven or any other vehicles;
- (bn) "Ground Floor" shall mean storey, which has its floor surface nearest to the ground around the building;
- (bo) "Habitable room" means a room having area of not less than 9.0 sqm., width 2.4 m (min.), height 2.75 m (min.) occupied or designed for occupancy by one or more persons for study, living, sleeping, eating, cooking if it is used as a living room, but does not include bathrooms, water closet compartments, laundries, serving and storage pantries, corridors, cellars, attics and spaces that are not used frequently or during extended periods;
- (bp) "Hazardous and obnoxious industry" means industry which creates nuisance to the surrounding development in the form of smell, smoke, gas, dust, air pollution, water pollution and other unhygienic conditions;
- (bq) "Hazardous material" means:
 - a. radioactive substances;
 - b. material which is highly combustible or explosive and/or which may produce poisonous fumes explosive emanations, or storage, handling, processing or manufacturing of which may involve highly corrosive, toxic, obnoxious alkalis or acids or other liquids;
 - c. other liquids or chemicals producing flame, fumes, explosive, poisonous, irritant or corrosive gases or which may produce explosive mixtures of dust or fine particles capable of spontaneous ignition;
- (br) "Heritage Zone" means the area as delineated in Master Plan;
- (bs) "Housing Project" means housing complex on plotted developments or having multiple apartment blocks;
- (bt) "Illuminated Exit Signs" means a device for indicating the means of escape during normal circumstances and power failure;
- (bu) "Jhamp" means a downward vertical or sloping projection hanging below the balcony to provide protection from direct sun or rain;
- (bv) "Katra/ Chawl" means a building so constructed as to be suitable for living in separate tenements each consisting a single room, or of two, but not more than two rooms and with common sanitary arrangements;

- (bw) "Land Use" means use of the land proposed in the Interim Development Plan or Comprehensive Development Plan or Zonal Development Plan or Local Development Plan;
- (bx) "Latrine-connected" means a latrine connected to the municipal sewer system;
- (by) "Latrine-unconnected" means a latrine not connected to the municipal sewer system; it may be connected to a septic tank or suitable treatment or disposal system;
- (bz) "Ledge/Tand" means 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 1.0 m and at a minimum clear height of 2.1 m from the floor level;
- (ca) "LIG House" means a house or dwelling unit intended for low income groups with a built up area of maximum 48 sqm. or as specified by the State Government;
- (cb) "LIG Plot" means a residential plot intended for low income groups with a plot area of maximum 60 sqm. or as specified by the State Government;
- (cc) "Lift"- An appliance designed to transport persons or materials between two or more levels in a vertical or substantially vertical direction by means of a guided car or platform. The word 'elevator' is also synonymously used for 'lift';
- (cd) "Lobby" means a covered space in which all the adjoining rooms open;
- (ce) "Loft" means an intermediate floor between two floors or a residual space in a pitched roof, above normal floor level with a maximum height of 1.5 m and which is constructed or adopted for storage purposes;
- (cf) "Masonry" means an assemblage of masonry units properly bonded together with mortar;
- (cg) "Master Plan/ Comprehensive Development Plan" includes any Master plan either interim or comprehensive or zonal plan in operation for the area under the jurisdiction of the Authority;
- (ch) "Means of Escape" refers to an escape route provided in a building for safe evacuation of occupants;
- (ci) "Mezzanine Floor" means an intermediate floor between two floors, above ground level, accessible only from the lower floor;
- (cj) "Mitigation" means measures taken in advance of a disaster aimed at minimizing or eliminating its impact on society and on environment including preparedness and prevention;
- (ck) "Mixed Land Use" means mixed use of the building/premises consisting of more than one compatible use of which the principal use shall not be less than 2/3rd of total build-up area;
- (cl) "Multi-storey or High Rise Building" means a building whose height is 15 m or more, measured from the average level of the centre line of the street on which the site abuts;

- (cm) "Mumty or Stair Cover" means a structure with a covering roof over staircase and its landing built to enclose only the stairs for the purpose of providing protection from weather and not used for human habitation;
- (cn) "Natural hazard prone areas" means areas likely to have moderate to high intensity earthquake, or cyclonic storm, or significant flood flow or inundation, or landslides/mud flows/avalanches, or one or more of these hazards:

NOTE: Moderate to very high damage risk zones of earthquakes are shown in Seismic Zones III, IV and V specified in IS: 1893 and flood prone areas in river plains (unprotected and protected) are indicated in the Flood Atlas of India prepared by the Central Water Commission, besides, other areas which can be flooded under conditions of heavy intensity rains, inundation in depressions, back flow in drains, inadequate drainage, etc. as identified through local surveys in the Master plan of the area and landslide prone areas as identified by State Government/Land surveys;

- (co) "Non-Combustible Material" means a material, which does not burn nor add heat to a fire when tested for combustibility in accordance with good practice;
- (cp) "Non-Conforming Use of a Building or Land" means the use of a building or land existing at the time of commencement of these regulations, and which does not conform to the Regulations pertaining to the zone in which it is located;
- (cq) "Occupancy or Use" means the principal occupancy for which a building or a part of a building is used or intended to be used;
- (cr) "Open Space" means an area forming an integral part of the plot, left open to the sky;
- (cs) "Parapet" means a low wall or railing built along the edge of a roof or a floor having a minimum height of 1.0 m;
- (ct) "Parking Space" means an area enclosed or unenclosed, covered or open, of sufficient size to park vehicles, together with a driveway connecting the parking space with a street or any public area and permitting ingress and egress of the vehicles;
- (cu) "Partition" means an interior non-load bearing wall, one storey or part of a storey in height;
- (cv) "Performance Security" means a security deposit to be deposited with the Authority by the Builder or Developer of an Apartment Building or Housing Projects or Commercial Building/Real Estate Development at the time of approval of Plans. However, no Performance Security is required for a commercial building having a covered area of less than 300 sqm.;
- (cw) "Permit" means a permission or authorization in writing by the Authority to carry out the work regulated by these regulations;

- (cx) "Plantation" means plantation of plants and trees;
- (cy) "Plinth" means the portion of a structure between the surface of the surrounding ground and the surface floor, immediately above the ground;
- (cz) "Plinth Area" means the built up area measured at the floor level of ground floor;
- (da) "Porch" means a covered surface supported on pillar or otherwise for the purpose of pedestrian or vehicular approach to a building;
- (db) "Public Utility service" means drainage, sewerage, electricity, water supply, solid waste disposal, sanitation, fire services, roads and any other support or infrastructure and the like for which a building has to depend on public bodies, authorities or agencies;
- (dc) "Ramp" means a passage with gradual slope joining two level surfaces;
- (dd) "Real Estate Development" means development undertaken for sale;
- (de) "Registered Technical Person" means a technical person registered under the provisions of the Odisha Development Authorities (Common Application Form) Rules, 2016;
- (df) "Road" means any access viz. highway, street, lane, pathway, alley, or bridge, whether a thoroughfare or not, over which the public has right of passage or access or have passed and had access uninterruptedly for a specified period and includes all bunds, channels, ditches, storm water drains, culverts, side tracks, traffic islands, road side trees and hedges, retaining walls, fences barriers and railings within the road line;
- (dg) "Road Width or Width of Road/Street" means the whole extent of space within the boundaries of a road when applied to a new road/street as laid down in the city survey or Master plan or prescribed road lines by any act of law and measured at right angles to the course or intended course of direction of such road. While calculating the width of the street the thorough width will be taken into consideration. i.e. the minimum width of the road from the start of the road/street till the plot. Every road shall have flanks on both sides of the road. The width of each flank shall be 15% of the road width unless and otherwise specified. In case public land is not available for the road and its flanks, the plot owners on both sides of the road shall equally surrender their right over the land to the authority to accommodate the road width. The centre line of the road shall be taken as reference for such surrenders. The surrender of the land shall be effected by a deed of transfer to be executed by the owner in favour of the Authority for widening of road;
- (dh) "Room Height" means the vertical distance measured from the finished floor level to the finished ceiling;
- (di) "Row Housing" means a row of contiguous houses with only front, rear and interior open spaces;

- (dj) "Rules" means, the rules framed under the Act;
- (dk) "section" means section of the Act;
- (dl) "Semi-Detached Building" means building detached on three sides (front, rear and side) with open spaces as specified under these regulations;
- (dm) "Service Floor" means floor in hotel or commercial building above ground floor in case of more than four storied buildings;
- (dn) "Service Lane" means a lane provided at rear or side of a plot for service purposes;
- (do) "Service Road" means a road or lane provided at the front, rear or side of a plot for service purpose;
- (dp) "Setback" means the distance between the plinth lines of the building and the boundary of the plot. The setback shall be measured at ground level;
- (dq) "Setback line" means 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;
- (dr) "Settlement" means a human settlement, whether urban or rural in character. It includes habited villages, towns, townships, cities and the areas notified under the control of the Authority;
- (ds) "Side Depth" means horizontal distance between the front and rear side boundaries;
- (dt) "Site" means a parcel or piece of land enclosed by definite boundaries;
- (du) "Site Plan" means a detailed Plan showing the proposed placement of structures, parking areas, open space, landscaping, and other development features, on a parcel of land, as required by specific sections of the development code.
- (dv) "Site with Double Frontage" means a site having frontage on two streets other than corner plot;
- (dw) "Smoke Stop Door" means a door for preventing or checking the spread of smoke from one area to another;
- (dx) "Spiral Staircase" means a staircase forming continuous winding curve round a central point or axis provided in an open space having tread without risers;
- (dy) "Stilt floor" means a floor supported by pillars with all four sides open to be used for parking, switch room, generator room, society room and information room with minimum height of 2.4 m;
- (dz) "Storage Space" means a space where goods of non-hazardous nature are stored and includes cold storage and banking safe vaults;
- (ea) "Store Room" means a room used as storage;
- (eb) "Storey" means the space between the surface of any floor and the surface of the floor next above it, or if there be no floor above it then the space between any floor and the ceiling next above it, but shall not include a mezzanine floor;

- (ec) "Supervisor" means a person having Diploma in Architectural Assistantship or Diploma in Civil Engineering/ equivalent qualification;
- (ed) "Tenements" means room or rooms in the occupation of, or meant for the occupation of one tenement;
- (ee) "To abut" means to abut on a road so that any portion of the building is on the road boundary;
- (ef) "To erect" a building means:
 - a. to erect new building on any site whether previously built upon or not;
 - b. to re-erect any building of which, portions above the plinth level have been pulled down or destroyed;
- (eg) "Unauthorized Construction" means the erection or re-erection, addition or alternation which is not approved or sanctioned by the Authority;
- (eh) "Underground or Overhead Tank" means an underground or overhead water tank, constructed or placed to store water;
- (ei) "Unsafe Building" means buildings which are structurally and constructionally unsafe, or in-sanitary, or do not provide adequate means of egress, or which constitute fire hazard, or are otherwise dangerous to human life or property, or which in relation to existing use constitute a hazard to safety or health or public welfare by reason of inadequate maintenance, dilapidation or abandonment;
- (ej) "Ventilation" means 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;
- (ek) "Verandah" means space with at least one side open to the outside with the exception of one-meter parapet on the upper floors to be provided on the open side;
- (el) "Water Closet'/ W.C." means a privy with arrangement for flushing the pan with water but does not include a bath room;
- (em) "Watercourse" means a natural channel or an artificial channel formed by draining or diversion of a natural channel meant for carrying storm and wastewater;
- (en) "Wholesale Establishment" means an establishment wholly or partly engaged in wholesale trade and manufacture, wholesale outlets, including related storage facilities, warehouses and establishments engaged in truck transport, including truck transport booking agencies;
- (eo) "Window" means an opening to the outside other than a door, which provides all or part of the required light or ventilation, or both to an interior space;
- (ep) "Zoning Regulations" means regulations or Plans governing land use in any development plan or forming part of a development plan in operation;

(2) Words and expressions used in these regulations, but not defined, shall have the same meaning as assigned to them in the Act, Rules framed thereunder.

PART II: ADMINISTRATION

3. Applicability.- Subject to the provisions of the Act, these regulations shall apply,- (1) To all development, redevelopment, erection and or re-erection of a building as well as to the design, construction of, or reconstruction and additions and alterations to a building.

(2) To all parts of the building affected by the change in case of change of occupancy of a building.

(3) To all parts of the building whether removed or not, and in case of removal of whole or any part of the building.

(4) To the remaining part of the building after demolition and work involved in demolition in case of demolition of whole or any part of a building.

(5) To use of any land or building where sub-division of land is undertaken or use of land or building is changed.

4. Application.- (1) Any person who intends to erect, re-erect or make additions or alterations in any building or demolish any building shall apply to the Authority in Form-I as appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.

(2) Such application shall be submitted electronically or in such other manner as may be notified by the Authority from time to time accompanied with four copies of the following documents, duly signed by the persons who have prepared them and the owner or the applicant, showing:

(a) Key plan: A key plan drawn to a scale of not less than 1:10,000 showing the boundary and location of the site with respect to neighbourhood landmarks and means of access. The minimum dimension of the key plan shall be not less than 75 mm.

(b) Site plan: The site plan shall be drawn to a scale of not less than 1:100 for plots up to 500 sqm. in size and on a scale of 1:500 for plots above 500 sqm. in size and shall show:

(i) The boundaries of the site and of any contiguous land.

(ii) The position of the site in relation to neighbouring streets.

(iii) The name of the street(s) in which the building is proposed to be situated, if any.

(iv) All existing buildings standing on, over or under the site including service lines.

(v) The position of the building and of all other buildings (if any) which the applicant intends to erect upon his contiguous land referred to in sub-clause (a) in relation to:

- A. 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 others;
 - B. All adjacent streets, buildings(with no. of storey and height) and premises within a distance of 12 m of the site and of the contiguous land (if any) referred to in sub-clause (a); and
 - C. If there is no street within a distance of 12 m of the site, the nearest existing street.
- (vi) The means of access from the street to the building, and to all other buildings (if any) which the applicant intends to erect upon his contiguous land referred to in sub-clause (a).
 - (vii) Space to be left about the building to secure free circulation of air, admission of light and access for scavenging purposes.
 - (viii) The width of the street (if any) in front of the street (if any) at the side / rear or near the buildings.
 - (ix) The direction of north point relative to the plan of the buildings.
 - (x) Any physical features, such as well, drains, etc.
 - (xi) Parking plans indicating the parking spaces wherever required.
 - (xii) Such other particulars as may be specified by the Authority.
- (c) Subdivision or layout plan: The sub division or layout plan shall be drawn on a scale or not less than 1:500 containing the following:
 - (i) Scale and north point.
 - (ii) The location of all proposed and existing roads with their existing or proposed or prescribed widths within the land.
 - (iii) Dimensions of the plot along with building lines showing the setbacks with dimensions within each plot.
 - (iv) The location of drains, sewers, public facilities and services, and electrical lines etc.
 - (v) Table indicating size, area and use of all the plots in the subdivision or layout plan.
 - (vi) Statement indicating the total area of the site, area utilized under roads, open spaces for parks, playgrounds, recreation space and Master plan reservations, schools, shopping and other public spaces along with their percentage with reference to the total area of the site proposed to be subdivided.
 - (vii) In case of plots, which are subdivided into built up areas in addition to the above, the means of access to the subdivision from existing streets.
 - (d) Building Plan and details: The plans of the buildings and elevations and sections shall be drawn to a scale of 1:50 for plots measuring upto 250 sqm.

for plots measuring above 250 sqm. to a scale of 1:100, and for plots measuring 2,000 sqm. and above to a scale of 1:200 with details on a scale of 1:100 and shall:

- (i) Include floor plans of all floors together with the covered area clearly indicating the size and spacing of all framing members and sizes of rooms and the position of staircases, ramps and lift wells.
 - (ii) Show the use or occupancy of all parts of the buildings.
 - (iii) Show exact location of essential services, for example, WC, sink, bath and the like.
 - (iv) Show all elevations.
 - (v) Include at least one section through the staircase.
 - (vi) Include the structural arrangements with appropriate sections showing type or arrangements of footings, foundations, basement walls, structural load bearing walls, columns and beams, and shear walls, and arrangement or spacing of framing members, floor slabs and roof slabs with the material used for the same.
 - (vii) Show all street elevations.
 - (viii) Give dimension of the projected portions beyond the permissible building line.
 - (ix) Include terrace plan indicating the drainage and slope of the roof.
 - (x) Give indications of the north point relative to the plan.
 - (xi) Details of parking spaces provided.
 - (xii) Statement and calculation sheets with regard to the plot area, floor wise details of spaces under various categories like apartments or office spaces, lobby circulation, staircase, lift, mezzanine, balconies and details of such area which are to be exempted from calculation of floor area ratio, and
 - (xiii) such other particulars as may be required to explain the proposal clearly and as specified by the Authority.
- (e) Building Plan for Multi-storeyed or special buildings: For all multi-storied buildings which are 15 m or more in height and for all special buildings, the following additional information shall be furnished or indicated in the building plan in addition to the items given in clause (iv) as applicable:
- (i) Access to fire appliances or vehicles with details of vehicular turning circle and clear motorable access way around the buildings.
 - (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 space.
 - (viii) Refuse 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) Detail of exits including provision of ramps, etc., for hospitals and special risk buildings or uses.
 - (xi) Location of generator, transformer and switch gear 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 dimension 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..
 - (xvii) Location and details of first-aid firefighting equipment or installations.
 - (xviii) Longitudinal cross section of the building including size of footings, basement and super structure framing members and details of building and room heights and of staircase.
 - (xix) Location of site for sanitation. (Refer to Annexure-I).
 - (xx) Segregated sanitation for visitors. (Refer to Annexure-II).
- (f) Services Plan: The services plan shall include all details of building and plumbing services, and also plans, elevations and sections of private water supply, sewage disposal system and rain water harvesting system. These plans shall be made available to a scale not less than 1:100.
- (g) Landscape Plan: The landscape plan is to be developed to a scale of 1:100 for plot upto 500 sqm. in size and for plots above 500 sqm. the scale shall be 1:500, indicating the circulation and parking spaces, pathways, greenery and plantation etc.
- (h) Specifications: Specifications, both general and detailed, giving type and grade of materials to be used duly signed by the registered architect, engineer, structural engineer shall accompany the notice.
- (3) Certificates or Clearances:
- (a) In case the applicant is a trust, group of persons, partnership or a company, a registered agreement between the holder of the right, title and interest and the applicant, valid under the Transfer of Properties Act, 1882 (4 of 1882) and

Copies of the Agreement or Article of Association or Memorandum or Bye-laws;

- (b) No Objection Certificate from the Odisha State Housing Board or the Authority, for the additional constructions, in case the house is delivered by the Board or the Authority and sale or lease deed is not executed;
- (c) Necessary environmental clearance wherever applicable. (Refer Annexure III for Environmental condition for compliance during building approvals as notified by the Ministry of Environment, Forest and Climate Change, Government of India.)
- (d) Necessary valid fire safety certificates for buildings as listed in Annexure IV and notified under section 10 of the Odisha Fire Service Act, 1993 (Odisha Act 30 of 1993) as revised time to time. (Refer Annexure IV for standards for fire protection and fire safety requirements).
- (e) NOC from Airport Authority of India shall be furnished wherever applicable.
- (f) In case of building of height between 15 m and 30 m, the structural plan and the structural design shall have to be vetted by Government engineering colleges. In case of buildings more than 30 meters height, the structural plan and the structural design shall have to be vetted by State Resource Centre identified by the Odisha State Disaster Management Authority or any Indian Institute of Technology or National Institute of Technology or Government Engineering College or any reputed technical institution identified by the Authority;
- (g) Any other certificates or clearances as required under the Act or rules framed thereunder or as specified by the Authority.

(4) Colouring notations of the Plans are as specified below. Where items of work are not identified, the colouring notation used shall be indexed.

Table 1: Colouring Notation of the Plan

Sl. No	Item	Computer Plots / plain paper copies/ ammonia prints
1	Plot Lines	Thick Black
2	Existing Street	Green
3.	Future street	Green dotted
4.	Permissible building line	Thick dotted black
5.	Existing work (outline)	Black
6.	Work proposed to be demolished	Yellow Hatched
7.	Proposed (a) Additions and alternations, (b) entirely new work	Red filled in Not to be coloured
8.	Drainage and sewerage	Red dotted

9.	Water Supply	Black dotted thin
10.	Open spaces	No colour

5. Signing the Plans.- (1) All the plans, drawings, statements, design details before submitting to the Authority shall be signed by the applicant and the registered technical person or project management organisation as the case may be.

Note:

- (a) The project management organisation or the registered technical person shall furnish a certificate to the effect that he shall supervise the construction of the building including the structural part of the construction and shall be responsible for any deviation from the approved plan and any structural failure except caused by unprecedented natural calamities and except if the applicant or project management organisation or registered Technical person intimates that their agreement has been terminated.
- (b) All aspects related to structural design, building surface, plumbing, electrical installation, sanitary arrangements, fire protection shall adhere to the specification, standards and code of practice recommended in the National Building Code of India and any breach thereof shall be deemed to be a breach of the requirements under these regulations.

(2) When it comes to the notice of the Planning Member, Engineering Member, any Member of the Authority, or any other person that a plan signed by registered technical person or project management organisation referred to under sub-regulation (1) is in violation of the norms of this regulation he shall bring this to the notice of the Authority.

(3) The Authority shall issue a notice asking for a show cause within fifteen days as to why such registered technical person or project management organisation shall not be disqualified or black listed. After receipt of the show cause if any, the matter shall be placed before the Authority for a decision on such disqualification or black listing. The decision of the Authority on disqualification or black listing shall be published in the notice Board of the Authority and in the Government Website.

(4) An appeal against an order under sub-regulation (3) shall lie under section 18 of the Act.

6. Fees.- (1) Every application for permission for building operation or development shall be accompanied by such fee as specified in rules 20, 21 and 24 of the Odisha Development Authorities (Common Application Form) Rules, 2016.

(2) In addition to the fees given in sub-regulation (1), the applicant shall also pay the following fees as decided by the Authority from time to time:

- (a) City Infrastructure Impact Fees;
- (b) Fees for temporary retention of existing building or structure;

- (c) Fees for change of land use;
- (d) Any other charges as may be determined by the Authority.

(3) The payments of fees and charges may be done electronically or by any other means as may be decided by the Authority from time to time.

7. Security Deposit.- (1) The applicant shall deposit a refundable non-earning security deposit at the rate of Rs. 100 per sq. m. and any amount revised time to time with government approval of covered area and for the following categories of buildings, namely:

- (a) Apartment buildings or Housing Projects
- (b) Commercial buildings having 300 sqm. or more of floor area. However the applicant shall have the option of paying security deposit in the form of Bank Guarantee.

(2) In case of sub-division of plan, the applicant shall deposit a refundable non-earning security deposit at the rate of Rs. 100 per Sq. m. and any amount revised time to time with government approval of plot area for development of land for a plotted development scheme which may be deposited in the form of Bank guarantee valid for a period of at least three years.

(3) The security deposits shall be refunded within 60 days from the date on which completion certificate is produced. If the construction or development are not as per approved plan, this deposit shall be forfeited and separate action will be initiated against the applicant as per the provisions of the Act.

(4) The security deposit shall be refunded with 2% interest if the building is constructed and development is carried out as per the approved plan or lay out.

(5) In cases where deviation is found to be within the compounding limits, compounding fee to be adjusted from the security deposit.

8. Permission.- (1) No permission shall be required for the works specified in clause-12.4.1, Part-2 of The National Building Code of India and section 15 of the Act.

(2) All clarifications with respect to deficiency in the plan, documents will be sought for from the applicant within reasonable time.

(3) Once the plan has been scrutinized and objections have been pointed out, the applicant shall modify the plan to comply with the objections raised and resubmit it. The Authority shall scrutinize the re-submitted plan and if there will be further objections, the plan shall be rejected.

(4) The Authority shall communicate either approval in Form-II or refusal in Form-III appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.

(5) If the Authority, does not communicate its decision either granting or refusing permission to the applicant within 60 days from the date of receipt of the application by

the Authority, the applicant shall draw the attention of the Vice-Chairman of the Authority with regard to his application, in Form-I appended to these Regulations. The Planning Member shall within the fifteen days from the date of receipt of notice in Form-I place the details of the case before the Vice-Chairman.

(6) If, within a further period of one month from the date of receipt of the application drawing such attention as mentioned in sub-regulation (4), the Authority does not communicate its decision, either granting or refusing permission, such permission shall be deemed to have been granted to the applicant on the date following the date of expiry of the three months period.

(7) For buildings other than low risk specifically stilt +3 and above buildings the relevant provisions of the Authorities, Odisha Development Authority, (Common Application Form) Rules 2016 shall be followed.

9. Maintenance of Register.- (1) A register in Form-II appended to these Regulations containing the necessary particulars including information as to the manner in which applications for permission have been dealt with by the Authority shall be maintained.

10. Construction not according to plan.- (1) If the Authority finds at any stage that the construction is not being carried on according to the sanctioned plan or is in violation of any of the provisions of these regulations, it shall notify the owner and no further construction shall be allowed until necessary corrections in the plan are made and the corrected plan is approved.

(2) If the owner fails to comply with the requirements at any stage of construction, the Authority may cancel the building permission issued and shall cause notice of such cancellation to be pasted upon the said construction. If the owner is not traceable at the address given in the notice, pasting of such notice shall be considered as sufficient notification of cancellation to the owner thereof. No further work shall be undertaken or permitted upon such construction until a valid building permission is issued thereafter.

(3) The notification under sub-regulation (2) shall also be published in a wide circulated newspaper as public notice.

(4) The Authority may also be at liberty to forfeit whole or part of the security deposit obtained from the builder or developer during sanction of the plan.

(5) The above mentioned procedure shall also be followed in case of deviation of the layout.

(6) An appeal against an order under sub-regulations (2) and (4) above shall lie under section 18 of the Act.

11. Information at the site of construction.- (1) Whereas tests of any material are made to ensure conformity of the requirements of these regulations, records of the

tests data shall be kept available for inspection during the construction of building and for such period thereafter as required by the Authority.

(2) The persons to whom a permit is issued during construction shall keep pasted in a conspicuous place on the property in respect of which the permit was issued;

- (a) A copy of the building permit; and
- (b) A copy of approved drawings and specifications

12. Completion of Construction.- (1) The Authority shall permit an Accredited Person to approve building plans and to certify completion of building for low-risk buildings, on a plot size up to 500 sqm.. The Responsibility of compliance with respect to provisions of these regulations shall rest with the concerned accredited persons approving the low-risk buildings as provided in the Odisha Development Authorities (Common Application Form) Rules, 2016. However, the plans shall be required to be submitted to the Authority for information and record.

(2) For buildings other than low risk the registered technical persons/architect /accredited technical person/ Project Management Organisation shall issue to the owner, a completion certificate as prescribed in the Odisha Development Authorities (Common Application Form) Rules, 2016, which may be submitted by owner as notice to the Authority indicating that the building has been completed in all respects as per the approved plan. The said notice shall be accompanied by the following documents:

- (a) Three copies of completed building plans;
- (b) A fee of Rs.1000/-;
- (c) Documents like Record of Rights relating to ownership, Copy of approved plan and permission letter and Structural safety certificate etc. as issued under the Odisha Development Authorities (Common Application Form) Rules, 2016.

(3) The deviations shall also be brought to the notice of the Authority with relevant documents.

NOTE: In case of low risk buildings where permission have been given by the accredited person the completion certificate to be given by the accredited person. In case of buildings other than low risk where the PMO is involved the completion certificate to be given by the PMO.

13. Liability for Defective Construction.- (1) For defective constructions, the Authority shall sue the owners, builders, Architects, and the Engineers for both civil and criminal liabilities, besides taking action under these regulations.

(2) Without prejudice to the provisions of the Act, the actions to be taken by the Authority shall include stop construction, cancellation of permission, and removal of unauthorized constructions.

14. Certificate for occupancy.- (1) After the completion certificate is issued by the registered technical person, accredited technical person or Project Management Organisation as the case may be under the provisions of Chapter III of the Odisha Development Authorities (Common Application Form) Rules, 2016, the Authority shall grant the occupancy certificate in accordance with the provisions of Chapter III of the Odisha Development Authorities (Common Application Form) Rules, 2016.

(2) The occupancy certificate shall be issued only after all utility services for the entire building are physically provided such as:-

- (a) The Departments or line agencies dealing with electric power, water supply, drainage and sewerage shall not give regular connections to the building unless such Occupancy Certificate is produced.
- (b) The Registration Authority shall register only the approved and permitted covered area as shown in the sanctioned building plan upon production and filing of a copy of such sanctioned building plan by the applicant.
- (c) The financial agencies or institutions shall extend loan facilities only to the permitted covered area as per the sanctioned building plan.

(3) The occupancy certificate shall also state the use or type of occupancy of the building. However, the applicant may apply for change of use or occupancy permitted within the purview of the Master Plan or Zonal Plan or Zoning regulations, where so required.

(4) The validity of the Occupancy Certificate of buildings of 15 m height and above and special buildings shall be as specified by the Odisha State Fire Service Department.

(5) In case of multi-storied or high rise building and other special building as listed in Section - 10 of Fire Safety Act, 1993 and revised time to time, after completion of the building and obtaining the occupancy certificate, periodic inspection shall be made by the Fire Authority to ensure the fire safety of the building and compliance with the provision of fire and life safety requirements ('Fire and Life Safety', Part-4 of the National Building Code of India). Periodic occupancy renewal certificate shall be issued by the Authority on the recommendation of the Fire Officer, which shall also include safe keep of firefighting installations and equipment for such building.

(6) All occupied buildings and buildings shall also be subject to periodic physical inspection by a team of multidisciplinary professionals of the Authority. This work may be outsourced by the Authority as may be deemed necessary. The team shall report compliance of regulations. If any short comings or deficiencies or violations are noticed during inspection, the occupants shall ensure the compliance of the same within a specified time frame of six months. If not complied with, the building shall be declared unsafe. The period of inspection shall be usually three to five years but in any case not more than five years.

(7) In case of occupation of a building before obtaining the occupancy certificate from the Authority a penalty shall be imposed at the rate of Rs. 100.00 (one hundred) per square meter of total covered area per year or a part thereof so occupied to be calculated from the date of occupation till issue of occupancy certificate subject to compliance of conditions of approval and the penalty amount may be revised by the Authority from time to time.

In such cases, the date of occupation of the building shall be determined keeping in view the last date of validation of the approved plan or the date of obtaining permanent electrical or water connection to the premises, whichever is earlier, or such other evidence to the satisfaction of the authority.

(8) Non-compliance of provisions indicated in sub-regulation (5) shall attract action with direction to the functional agencies (Power, W/S and Sewerage) to discontinue their respective services to the building.

15. Art Commission.- (1) Where the building plan accompanying the application seeking permission, requires the clearance of the Art Commission, Odisha, constituted under section 88, the Authority shall grant the permission only after the clearance is given by the said Commission. In all other cases, Architectural Control shall be regulated according to the provisions of these regulations.

(2) The Authority, on the recommendation of the Art Commission, may issue public notices, from time to time, prescribing the architectural norms in different zones.

16. Construction near protected monuments.- (1) No construction or reconstruction of any building, within a radius of 100 meters, or such other higher distance from any archaeological site, as may be decided by the Archaeological Survey of India and the Odisha State Archaeology Department from time to time, from the outer boundary of a declared protected monument shall be permitted.

(2) No construction above 1st floor and above 7 (seven) m shall be allowed beyond a radius of 100 m and within a radius of 300 m of such monuments.

(3) The construction or reconstruction of any building under sub-regulation (2) shall not be above 7 (Seven) m of total height.

(4) Notwithstanding anything contained in the sub-regulation (1) & (2) above, construction or re-construction or addition or alteration shall be allowed on production of clearance from A.S.I. or State Archaeology Department as the case may be.

(5) If a building or premises, not covered under the Ancient Monument Preservation Act, 1904, or the Ancient Monuments and Archaeological Sites and Remains Act, 1958, in the opinion of the Authority, is of historical or architectural interest, and is in danger of being demolished or altered or likely to be affected in its character by a development, the

Authority shall not grant permission for construction over any land situated near the said building or premises.

(6) An appeal against the decision under sub-regulation (5) shall lie under section 18 of the Act.

17. Demolition of building.- (1) Before a building is demolished, the owner shall notify all utilities having service connections within the building, such as water electricity, gas, sewer and other connections. A permit to demolish a building shall not be issued until a release is obtained from the utilities departments stating that their respective service connections and appurtenant equipment, such as meters and regulators have been removed or sealed and plugged in a safe manner.

(2) The owner shall take all precautionary measures to avoid noise and dust pollution and shall not create any inconvenience to the neighbouring plot owners.

(3) In case of semidetached building, no objection certificate from the neighbours shall be obtained.

18. Responsibility and duty of the applicant.- (1) Neither granting of the permit nor the approval of the drawing and specifications, nor inspections made by the Authority during erection of the building shall in any way relieve the applicant from full responsibility for carrying out the work in accordance with the requirements of the National Building Code of India and these regulations.

(2) Every applicant shall:

- (a) Permit the Authority to enter the building or premises, for which the permission has been granted at any reasonable time for purpose of enforcing the regulations;
- (b) Obtain, where applicable, from the competent Authority permissions or clearance required in connection with the proposed work; and
- (c) Obtain an Occupancy Certificate from the Authority prior to occupation of building in full or part.

19. Responsibility of the Authority.- (1) Approval of plans and acceptance of any statement or document pertaining to such plan shall not exempt the owner or technical person or project management organisation under whose supervision the building is constructed from the responsibilities imposed under these regulations, or under any other law for the time being in force.

(2) Approval of plan would mean granting of permission to construct under these regulations only and shall not mean among other things:

- (a) the title over the land or building;
- (b) easement rights;

- (c) variation in area from recorded area of a plot or a building;
- (d) structural stability;
- (e) workmanship and soundness of materials used in the construction of the Buildings;
- (f) quality of building services and amenities in the construction of the building,
- (g) the site/ area liable to flooding as a result of not taking proper drainage arrangement as per the natural lay of the land, etc.; and
- (h) other requirements or licenses or clearances required for the site / premises or activity under various other laws.

(3) The approval or permission shall not bind or render the Authority liable in any way with regard to the matter specified in sub-regulation (2).

20. Constitution of Development Plan & Building Permission Committee.- (1) The Authority shall constitute a Committee under section -6 of the Odisha Development Authorities Act, 1982 to be called Development Plan and Building Permission Committee with members from the following Organizations/Department besides those required from Kalinga Nagar Development Authority.

- i. Vice Chairman, KNDA, (Chairman)
- ii. Director, Town Planning, Orissa, (Member)
- iii. Engineer Member,KNDA (Member)
- iv. Executive Engineer, PHEO (Member)
- v. Chief Fire Officer,or his representative (Member)
- vi. Regional Secretary or his representative
Orissa State Pollution Control Board, (Member)
- vii. Municipal Engineer, Vyasaganar Municipality (Member)
- viii. Other special Invitees as and when required depending upon the subjects to be discussed.
- ix. Planning Member,KNDA (Member Convener)

(2) The Authority may by notification delegate such powers in relation to approval of schemes, projects and building plans to the Committee constituted under Sub-Regulations (1) as it may deem appropriate.

(3) Matters and cases relation to permission under sections 16 of the Orissa Development Authority Act and such other matters including permission for multi storeyed buildings are required to be referred to the Committee from time to time for advice & recommendations.

(4) In order of facilitate clearance from different bodies/ departments of the State Government with the concept of single window clearance approach and thereby final approval by the Authority within the stipulated time frame, the Authority may constitute a Building Approval Committee consisting of representatives of the organizations/bodies from whom clearance for development/building permit clearance is required for approval of plans coming up in Special Economic Zones, Group Housing, Multistoreyed Buildings & other Special Building.

PART III: LAND USE CLASSIFICATION AND PERMISSIBLE USES

21. Zoning.- (1) In the Development Plan area, various use zones as specified in column (a) of Table-2 having their zonal boundaries as indicated in the development plan shall be regulated in accordance with the provisions of the said Table. Except as otherwise provided no structure or land hereinafter shall be used and no structure shall be erected, re-erected or altered unless its use is in conformity with these regulations.

(2) All places of worship, temples, churches, mosques, burial and cremation ground etc. as existing on the date of notification of this regulation shall be exempted from being treated as non-conforming uses:

Provided that continuance of such uses are not detrimental to the locality as decided by the Authority from time to time.

(3) For all non-confirming land use, no expansion shall be permitted. At the time of redevelopment, stipulated zoning regulations shall be followed.

22. Different use of land.- (1) Permission for different uses shall be accorded outright for principal use earmarked in the different zones described in column (b) of Table No.2.

(2) Permission for different uses described in column (c) of Table No.2 shall be permitted on special consideration on the recommendation of Development Plan and Building Permission (DP and BP) Committee and reasons for such consideration shall be recorded in writing.

(3) The purposes specified in column (d) of the said Table shall not be permitted in the areas reserved for particular uses.

(4) Residential buildings may be permitted in the open space/recreation use zone if the following conditions are satisfied along with other conditions of these regulations and on recommendation of DP (Development Plan) and BP (Building Permission) Committee.

(a) the land is a stitiban land and is not a leasehold land;

(b) the coverage is not more than 40%;

(c) the height is not more than 7.0 (seven) m; and at least 20 percent of land is used for plantation;

(5) Mixed use of the building may be permitted in a particular zone on the recommendation of Development Plan (DP) and Building Permission (BP) committee. However, the main use shall cover not less than 2/3rd of the total floor area and the ancillary use shall not exceed 1/3rd of the total area. Minimum plot size for allowing mixed use shall be 500 sqm. abutting a road of minimum width 9 m.

(6) Subject to the provisions contained in regulation 16, the following provisions shall be applicable in all constructions in Special Heritage Zone earmarked in the Comprehensive Development Plan.

- (a) The maximum height of the building shall not exceed 15 m.
- (b) All proposals for development over an area of more than 500 sqm. of ten meter height or both shall only be considered on recommendation of the DP and BP Committee with representation from Archaeological Survey of India and the Odisha State Archaeology Department.

(7) For construction of Building in Environmentally Sensitive Zone, the following provisions shall be applicable, namely:-

- (a) The minimum size of the plot shall be 4000 sqm.
- (b) The minimum width of the approach road shall be 12 m.
- (c) The maximum coverage shall not exceed 40% of the area
- (d) The proposal for development shall only be considered on recommendation of DP and BP Committee with representatives from Water Resource Department, Odisha State Pollution Control Board and Public Health Engineering Department in the above Committee.

Table 2: Land uses permitted/ prohibited in different use zones

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
	(a)	(b)	(c)	(d)
1	Residential Use Zone	1. Residence – plotted, (detached, semi - detached and row housing) apartment, Housing Projects houses, work cum residential	1. Places of worship	1. Heavy, large and extensive industries, noxious, obnoxious and hazardous industries
		2. Hostels, boarding and lodging houses	2. Shopping centers	2. Warehousing, storage godowns of perishables, hazardous, inflammable goods, wholesale mandis, junk yards
		3. Night Shelters, dharamshalas, guest houses	3. Municipal, state & central government offices	3. Workshops for buses
		4. Education Buildings (nursery, primary, high school)	4. Colleges and research institutions	4. Slaughter houses
		5. Neighborhood level social, cultural and recreational facilities with adequate parking provisions	5. petrol filling stations	5. Hospitals treating contagious diseases
		6. Marriage and community halls	6. Places of entertainment, cinema halls, restaurants and hotels	6. Sewage Treatment Plants and disposal sites
		7. Convenience shopping, local (retail) shopping	7. Markets for retail goods	7. Water Treatment Plants, Solid waste dumping

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
				grounds
		8. Community Centers, clubs, auditoriums	8. IT and IT enabled services	8. Outdoor & Indoor games stadia, shooting range
		9. Exhibitions and art galleries	9. Tourism related services	9. Zoological garden, botanical garden, bird sanctuary
		10. Libraries and gymnasiums	10. Motor vehicle repairing workshop, garages, storage of LPG cylinders	10. International conference centers
		11. Health clinics, yoga centers, dispensaries, nursing homes and health centers (20 beds)	11. Burial grounds	11. Dist. battalion offices, forensic science laboratory
		12. Public utilities and buildings except service and storage yards, electrical distribution depots and water pumping stations	12. Printing press employing not more than 10 persons	12. Actual uses not specifically permitted in column (a) and (b)
		13. Nursery and green houses	13. Godowns/ warehousing of non-perishables	
		14. Services for households (salon, parlors, bakeries, sweet shops, dry cleaning, internet kiosks, etc.)	14. Bus depots without workshop	
		15. Banks and professional offices not exceeding one floor	15. Household industries if the area for such use does not exceed one floor and there shall be no public display of the goods	
		16. Bus stops, taxi stands, 3-wheeler auto stands, rickshaw stands	16. Consulates	
		17. Police posts and post offices		
		18. Parks and tot-lots		
2	Commercial Use Zone	1. Retail business, mercantile	1. Associated residential uses	1. Polluting industries
		2. Commercial centers	2. Wholesale storage yards	2. Heavy, extensive noxious, obnoxious, hazardous and extractive industrial units
		3. Banks, financial services and stock exchanges	3. Service garages provided they do not directly abut the main road	3. Hospitals, research laboratories treating contagious diseases

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
		4. Perishable goods markets	4. Printing press employing not more than 10 persons	4. Poultry farms, dairy farms, slaughter houses
		5. Business and professional offices	5. 20 bedded hospitals not treating contagious diseases & mental patients	5. Sewage Treatment Plants and disposal sites, solid waste treatment plants and dumping grounds
		6. Private institutional offices & semi-government offices	6. Weigh bridges	6. Agricultural uses, storage of perishable & inflammable commodities
		7. Shops and shopping malls	7. Colleges, polytechnics and higher technical institutions	7. Quarrying of gravel, sand, clay and stone
		8. Commercial services	8. Sports complex and stadiums	8. Zoological gardens, botanical gardens and bird sanctuary
		9. Restaurants and hotels	9. Transient visitor's homes	9. Sports training centers
		10. Hostels, boarding houses, social and welfare institutions, guest houses	10. Places of entertainment, recreational uses and museums	10. District battalion offices
		11. Convenience and shopping centers (neighbourhood and local), weekly and formal markets, bakeries and confectionaries	11. Convention centers	11. Forensic science laboratory and all other related activities which may cause nuisance
		12. Cinema halls, theatres, banquet halls, auditoriums	12. Religious places	12. All uses not specifically permitted in the column (a) and (b)
		13. Marriage and community halls, night shelters	13. Public Utilities, telephone exchanges	
		14. Clinics and nursing homes	14. Police posts and post offices	
		15. Petrol Pumps	15. Residential apartment, Housing Projects	
		16. IT and IT enabled services	16. Picnic Hut	
		17. Commercial institutions, research and training institutes		
		18. Parking lots		
		19. Taxi stands, 3-wheeler/ auto-stands, rickshaw stands		

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
3	Wholesale commercial use zone	1. Wholesale & retail business	1. Truck terminal, bus depots and parking	1. Polluting industries
		2. Wholesale & storage buildings	2. Freight terminal	2. Large scale storage of hazardous and other inflammable materials except in areas, specifically earmarked for the purpose
		3. Commercial & business offices & work places	3. Warehousing, storage godowns or perishable, inflammable goods, coal, wood, timber yards	3. All uses not specifically permitted in columns (a) and (b)
		4. Petrol pumps & service stations on roads of 12 m or more ROW	4. Service centers, garages, workshops	
		5. Godowns, covered storage and warehousing	5. Non-polluting, non-obnoxious light industries	
		6. Weigh bridges	6. Junk yards	
		7. Bus stops, taxi stands, 3-wheeler/auto stands, rickshaw stands	7. Gas installation and gas works	
		8. Parking spaces	8. Railway yards & stations, road freight stations	
		9. Restaurants	9. Banks & financial service	
		10. Public Utilities	10. Associated residential uses, residential apartment, Housing Projects	
		11. Police station/ posts, post offices	11. Government and Semi-government offices	
			12. Water treatment plants	
4	Industrial Use Zone	1. All kind of non-polluting industries	1. Heavy, extensive and other obnoxious, hazardous industries subject to approval of Odisha Pollution Control Board	1. General business unless incidental to an on the same site with industry
		2. IT & ITES	2. Industrial Research Instn	2. Schools & colleges
		3. SEZs notified by government of India	3. Technical education institutions	4. Recreational sports or centers
		4. Loading, unloading spaces	4. Junk-yards, sports/ stadium/ playgrounds	5. Other non-industrial related activities
		5. Warehousing, storage &	5. Sewage disposal works,	6. Religious buildings

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
		depots of non-perishable & non-inflammable commodities	electric power plants, service stations	
		6. Cold storage & ice factory	6. Government, semi-govt, private business offices	7. Irrigated and sewage farms
		7. Gas godowns	7. Banks, financial institutions and other commercial offices	8. Major oil depot and LPG refilling plants
		8. Wholesale business establishments	8. Agro-based industries, dairy and farming	9. Social buildings
		9. Petrol filling station with garages and service stations	9. Gas installations & gas works	10. All uses not permitted under column (a) and (b)
		10. Bus terminals and bus depots and workshops	10. Workshops garages	
		11. Parking, taxi stands, 3-wheeler/auto stands, rickshaw stands	11. Industrial Housing	
		12. Residential buildings for essential staff and for watch and ward	12. Museums	
		13. Public utilities	13. Helipads	
			14. Hospitals & medical centers	
			15. Hotels / Motels / Guest houses	
5	Institutional Use Zone	1. Government offices, central, state, local and semi-government, public undertaking offices	1. Residential flats/ plots for Housing Projects and staff housing, residential apartment, Housing Projects	1. Heavy, extensive and other obnoxious hazardous industries
		2. Universities and specialized educational institutions, colleges, schools, research and development centers	2. IT services	2. Slaughter houses
		3. Social and Welfare centers	3. Defense quarters	3. Junkyard
		4. Libraries	4. Hotels, transit accommodation	4. Wholesale mandis
		5. Hospitals, health centers, dispensaries and clinics	5. Entertainment & recreational complexes	5. Dairy and poultry farms, farm houses
		6. Social and cultural institutes	6. Nursery & kindergarten	6. Workshops for servicing and repairs
		7. Religious buildings	7. Open air theatre,	7. Processing and sale of

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
			playground	farm products
		8. Conference halls	8. Residential club, guest house	8. All uses not permitted under column (a) and (b)
		9. Community halls, kalyan mandap, dharamshala	9. Bus & truck terminals, helipads	
		10. Museums, art galleries, exhibition halls, auditoriums	10. Parking areas, taxi stands, 3-wheeler/auto stands, rickshaw stands	
		11. Police stations, police lines, jails		
		12. Local, state & central government office uses for defence purpose		
		13. Education & research institutions		
		14. Social and cultural, religious institutions		
		15. Local municipal facilities		
		16. Uses incidental to government offices and for their use		
		17. Monuments		
6	Utility and Service Use Zone (PS)	1. Post offices, telegraph offices, public-utilities & buildings	1. Service Industry	1. Any building or structure which is not required for uses related to public utilities and activities is not permitted therein
		2. Water Treatment Plant, Sewage Treatment Plant, Solid Waste Treatment Plant, solid waste dumping grounds	2. Warehouse/ storage godowns	2. Heavy, extensive and other obnoxious hazardous industries
		3. Radio transmitter and wireless stations, telecommunication centers, telephone exchange	3. Health center for public and staff or any other use incidental to public utilities and services	3. All uses not permitted in column (a) and (b)
		4. Water supply installations	4. Information/ payment kiosk	
		5. Sewage disposal works	5. Incidental/ ancillary residential units	
		6. Service stations	6. Truck terminals, helipads	
		7. Cremation grounds and cemeteries/ burial ground	7. Commercial use center	

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
		8. Power plants/ electrical sub-station		
		9. Radio & television station		
		10. Fire stations		
7	Parks, Open Space/ Recreation Use Zone (OS)	1. Specialized parks/ maidans for multi-purpose use	1. Building and structure ancillary to use permitted in open spaces and parks such as stands for vehicles on hire, taxis and scooters	1. Any building or structure, which is not required for open air recreation, dwelling unit except for watch and ward, and uses not specifically permitted therein
		2. Regional parks, district parks, playgrounds, children parks	2. Commercial use of transit nature like cinemas, circus and other shows	2. All uses not specifically permitted in column (a) and (b)
		3. Clubs	3. Public assembly halls	
		4. Stadiums, picnic huts, holiday resorts	4. Restaurants	
		5. Shooting range, sports training center	5. Parking areas, caravan parks	
		6. Swimming pools	6. Open air cinemas/ theatre	
		7. Botanical/ zoological garden, bird sanctuary	7. Entertainment and recreational complexes	
		8. Green belts	8. Community hall, library	
		9. Bus and railway passenger terminals	9. Open air theatre, theme parks, amphitheatres	
		10. Public utilities and facilities such as police post, fire post, post and telegraph office, health center for players and staff	10. Residential club, guest house	
		11. Animal racing or riding stables	11. Camping sites	
			12. Yoga & meditation centers	
			13. Commercial uses center	
			14. Special education area	
8	Transportation Use Zone (T)	1. All types of roads	1. Wayside shops and restaurants	1. Use/activity not specifically related to transport and communication permitted herein
		2. Railway stations & yards	2. Authorized/ planned	2. All uses not specifically

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
			vending areas	permitted in column (a) and (b)
		3. Airport	3. Incidental/ ancillary residential use	
		4. Bus stops & bus stand, truck terminals	4. Emergency health care center	
		5. Taxi stands, auto stands, rickshaw stands	5. Tourism related projects	
		6. Ferry ghats	6. All ancillary (complimentary) uses for above categories (subject to decision of Authority)	
		7. Parking areas	7. Commercial Use	
		8. Multi-level car parking		
		9. Filling stations		
		10. Transport offices, booking offices		
		11. Night shelter, boarding houses		
		12. Banks		
		13. Restaurants		
		14. Workshops and garages		
		15. Automobile spares & services, godowns		
		16. Loading and unloading platforms (with/without cold storage facility, weighbridge)		
		17. Ware houses, storage depots		
		18. Utility networks (drainage, sewage, power, telecommunications)		
9	Agriculture Use Zone (A)	1. Agriculture & Horticulture	1. Houses incidental to this use	1. Residential use except those ancillary uses permitted in agricultural use zone
		2. Dairy & poultry farming, milk chilling center	2. Parks and other recreational uses	2. Heavy, extensive, obnoxious, noxious and hazardous industries
		3. Storage, processing and sale of farm produce	3. Wayside shops and restaurants	3. Any activity which is creating nuisance and is obnoxious in nature
		4. Dwelling for the people engaged in the farm (rural)	4. Hospital for infectious and contagious diseases,	4. All uses not specifically permitted in column (a)

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
		settlement)	mental hospital after clearance from Authority	and (b)
		5. Farm houses and accessory buildings	5. Agro-serving, agro processing, agro-business	5. For notified forest lands only afforestation is permitted and item nos. 18 & 19 of column (b) are permissible by competent authority
		6. Afforestation	6. Cottage industries	
			7. Burial & crematorium grounds	
			8. Service industries, accessory to obnoxious & hazardous industries	
			9. Ice factory, cold storage	
			10. Godowns & warehouses	
			11. Soil testing lab	
			12. Normal expansion of land uses only in the existing homestead land	
			13. Solid waste mgmt. sites, sewage disposal work	
			14. Electric sub-station	
			15. Quarrying of gravel, sand, clay or stone	
			16. Building constn., over plots covered under town planning scheme and conforming uses	
			17. Brick kilns & extractive areas	
			18. Eco-tourism, camping sites, eco-parks, eco-lodges	
			19. Special outdoor recreations.	
10	Water Bodies Use Zone	1. Rivers, canals	1. Fisheries	1. Use/ activity not specifically related to water bodies. Use not permitted herein.
		2. Streams, water springs	2. Boating, water theme parks, water sports, lagoons	2. All uses not specifically permitted in column (a) and (b)
		3. Ponds, lakes	3. Water based resort with	

Sl. No.	Use Zone	Uses/ Activities Permitted	Uses/Activities Permissible on recommendation of DP&BP Committee	Uses/ Activities Prohibited
			special by-laws	
		4. Wetland, aqua-culture	4. Any other use/ activity incidental to water bodies use zone is permitted	
		5. Reservoir		
		6. Waterlogged/marshy area		
11	Special Area Use Zone	<p>1.Old built-up areas having mixed land use.</p> <p>2. Areas of historical or archaeological monuments and architecturally important buildkings.</p> <p>3.Areas of scenic value and needs to be preserved without spoiling the Charachter by putting up various kinds of structures.</p> <p>4.Village Settlements.</p>	Any other use/activity incidental to Special Areas Use Zone is pepmitted.	Use/activity not specifically related to Special Areas Use Zone not permitted herein.
12	Forest and plantation	<p>1.Plantation, Specialized parks.</p> <p>2.Special ecology oriented recreational activities.</p> <p>3. Botanical/zoological garden, bird sanctuary</p> <p>4.Picnic spots.</p> <p>5. Public utilities and facilities such as police post, fire post.</p>	Any other use/activity incidental to forest and plantation permitted	Use/activity not specifically related to forest and plantation.

PART IV: GENERAL

23. Restriction on permission.- (1) Without prejudice to any other stipulation in these regulations, no permission to construct a building on a site shall be granted:

- (a) in areas of natural waterways or drains, as detailed in the Master Plan, and drainage plan as modified from time to time;
- (b) if the orientation of such building is not in harmony with the surroundings;
- (c) if the use to which the site is proposed to be put does not conform to the use earmarked in the Master Plan;
- (d) if the building is to be constructed over or under a municipal drain, sewerage line, electrical line, water main, any other Government or public land, or public utility services;
- (e) if the foundation of the external wall along a street is located at a distance less than 0.5 meters from the edge of the street or road margin including the drain;
- (f) if all Structural Plans are not prepared taking into account the seismic zone safety measures.

24. Distance from Electric lines:- As provided in clause 6.4 of the National Building Code of India, no verandah, balcony or the like shall be allowed to be erected or re-erected or any additions or alterations made to a building within the distances quoted below in accordance with the rules made under the Indian Electricity Act, 1910 between the building and any overhead electric supply line;

Table 3: Minimum Distance from the Electric Line

	Vertical distance (m)	Horizontal distance (m)
Low and medium voltage lines and service lines	2.5	1.2
High voltage lines up to and including 11,000 Volt	3.7	1.2
High voltage lines above 11,000 volt and up to and including 33,000 Volt	3.7	2.0
Extra high voltage line beyond 33,000 Volt	3.7 (Plus 0.3 m for every additional 33,000 volts or part thereof)	2.0 (Plus 0.3 m for every additional 33,000 volts or part thereof)

25. Plantation.- In every building area, at least 10% of the land shall be covered by plantation, but in case of high-rise buildings or Housing Projects or Apartment building or Industrial or Assembly or Educational or Institutional buildings, at least 20% of the land shall be covered by plantation.

26. Means of Access.- (1) Every building or plot shall abut on a public or private means of access like streets or roads of duly formed of width as specified in clause 4, Part-3 of the National Building Code of India.

(2) In no case, development of plots shall be permitted unless it is accessible by a public or private street of width not less than 6 meters.

(3) In case of institutional, administrative, assembly, industrial and other non-residential and non-commercial activities, the minimum road width shall be 9 m.

(4) In case of a private road, which gives access to one or more buildings, the owner of the said private road shall develop the road and storm water drain as required by the Local Authority, and transfer the same to the registered Residents' Welfare Association for maintenance.

27. Minimum size of plots.- The minimum size of plots for different categories of building is given in the table:

Table 4: Category Wise Size of Plots

Category	Minimum Road width (m)	Minimum size of plot (sqm.)
Kalyan Mandaps	9	1000
Cinema, game centres, Multiplex, convention centres	12	2000
Social clubs and amenities	9	1000
Multi storey car parking	9	1000
Office buildings	9	300
Primary/Upper Primary school	9	2000
High School , Residential school	9	6000
+2 College / Junior college	9	4000
Degree College	9	6000
Technical educational institution	9	10000
Petrol pumps / Filling stations	9	500
Restaurant	9	500
LPG storages	9	500
Places of congregation	9	500
Public libraries	9	300
Conference hall	9	1000

Community hall	9	500
Nursing homes/polyclinics/ Hospital and other clinical establishments	9	300
Hotel	9	2000
R & D Lab	9	1500

Note: In exceptional cases the Authority may consider revising the minimum size of plot and road width on the recommendations of the Development Plan & Building Permission (DP&BP) Committee.

28. Minimum setbacks for non-high rise buildings.- (1) The minimum setbacks permissible in a given size or plot for residential and commercial building in non-high rising category shall be as follows;

Table 5: Plot Size Wise Permissible Set Backs

Plot size (Sqm.)	Front Setbacks (m) abutting road width					Min. setbacks – Other sides (m)	
	Less than 9 m	9 m and below 12 m	12 m and below 18 m	18 m and below 30 m	Above 30 m	Rear side	Other side
Up to 40 sqm.	1.0	1.0	1.0	1.0	1.0	-	-
Above 40 & up to 100	1.0	1.0	2.0	2.0	2.0	-	-
100 & upto 200	1.0	1.0	2.0	2.0	3.0	1.0	--
200 & upto 300	1.5	1.5	2.5	2.5	3.5	1.0	1.0
Above 300 & upto 400	1.5	1.5	2.5	2.5	3.5	1.5	1.0
Above 400 & upto 500	1.5	2.0	2.5	3.0	3.5	1.5	1.5
Above 500 & upto 750	1.5	2.0	3.0	3.0	4.0	2	2
Above 750	1.5	2.0	3.0	4.0	4.0	3	2.5

(2) In case of Housing Projects or apartments, the minimum distance between two buildings will not be less than 1/3rd of the height of the taller building. However the minimum width of the internal road shall be 6 m. In all other cases, the width of such open

space between the buildings on a plot shall be the setback specified for the tallest building subject to a minimum of three metres.

- (3) The setbacks or open spaces for other occupancies shall be as below;
- (a) Institutional buildings - In case of plot upto 1000 sqm., the open spaces around the building shall not be less than 3 m and for all other buildings the open spaces around the building shall not be less than 6 m.
 - (b) Assembly buildings - the open space in front shall be not less than 12 m and the other open spaces around the building shall not be less than 6 m.
 - (c) Storage buildings - In case of plots with more than 500 sqm. area, the open spaces around the building shall not be less than 4.5 m.
 - (d) Hazardous occupancies - the open spaces around the building shall not be less than 6 m.
 - (e) IT, ITES and other Corporate Buildings: - In case of plots up to 750 sqm. the minimum setbacks around the building shall not be less than 3 m. In case of plots above 750 sqm., the minimum other setbacks around the building shall not be less than 4.5 m.
 - (f) Slum Improvement- The setback norms shall not apply to slums taken up under an approved programme of the Government subject to the specific sanction of the Government.

29. Minimum setbacks for high rise buildings.- For high-rise or multi-storied buildings, the open spaces around the building shall be as given in the Table below:

Table 6: Provision of Exterior Open Spaces around the Buildings

S. No	Height of the building up to (m)	Exterior open spaces to be left out on all sides in (m). (front rear and sides in each plot)
1	More than 15 up to 18	6
2	More than 18 up to 21	7
3	More than 21 up to 24	8
4	More than 24 up to 27	9
5	More than 27 up to 30	10
6	More than 30 up to 35	11
7	More than 35 up to 40	12
8	More than 40 up to 45	13
9	More than 45 up to 55	14
10	55 and above	16

Note: In case of high-rise buildings the exterior open space around a building for a width of 6 m shall be of hard surface capable of taking load of fire engine weighting up to 45 tonnes.

30. Floor Area Ratio.- (1) The Floor Area Ratio (FAR) for residential, commercial, corporate, IT or ITES buildings shall be decided on the basis of the road width on which the plot or site abuts.

Table 7: FAR as per Road width

Road width in (m)	FAR for Commercial/ Residential Building
Up to 6	1.00
6 or more & less than 9	1.50
9 or more & less than 12	1.75
12 or more & less than 15	2.00
15 or more & less than 18	2.25
18 or more & less than 30	2.50
30 & above	2.75

(2) In case of Institutional and Assembly building the maximum permissible FAR shall be 1.50 for plots up to 1000 sqm. and 1.75 for plots above 1000 sqm.

(3) In case of transport related activities such as; railway yards, railway station, bus stands, bus shelters, transport depot, airport, special warehousing, cargo terminals etc. the maximum permissible FAR shall be 1.00.

(4) The authority shall allow FAR upto Base FAR as per the eligibility. Any FAR beyond the Base FAR and within the permissible FAR. FAR shall be allowed on production of TDR certificate or purchase of TDR (Transferable Development Right) as per the provisions of the Odisha Transferrable Development Right Rules, 2015.

(5) The Authority may allow premium FAR up to 0.25 on IT or ITES and thrust sector buildings on payment of fees to be decided by the Authority from time to time, on roads of width 12 m and above. The Authority may refund the fee proportionate to 0.10 premium FAR in case of platinum or gold certified green buildings.

(6) The benefit of unutilized FAR in respect of Apartment Buildings or Housing Projects shall be made available to the society and not to the Builder or Developer.

(7) Exclusive multi-storey parking blocks can be provided within the required setback area without reducing the driveway for the fire tender to the extent of minimum 6 meters. This will not be included in the calculation of coverage and FAR.

(8) FAR shall not include

- (i) Basements or cellars and space under a building constructed on stilts and used as a parking space, and air conditioning plant room used as accessory to the principal use;
- (ii) Electric cabin or substation, watchman booth of maximum size of 10 sqm. with minimum width or diameter of 1.732 m, pump house, garbage shaft, space required for location of fire hydrants, electric fittings and water tank, society room of maximum 12 sqm.;
- (iii) Projections and accessories buildings as specifically exempted from the open space or setback requirement.
- (iv) Staircase room and lift rooms above the topmost storey, architectural features, and chimneys and elevated tanks of dimensions as permissible under the National Building Code of India; the area of the lift shaft shall be taken only on one floor.
- (v) The space in stilt of the building constructed for EWS housing and used for community facility without enclosures.

31. Height of a building.- (1) The height restrictions with respect to approach Funnels and Transitional area of Airport as detailed in Table -8 and 9 shall be adhered to.

Table 8: Height Restriction with respect to Approach Funnels

Distance from nearest runway end (in m)	Maximum Permissible height above the elevation of the nearest runway end (in m)
Up to 360	0
361 to 510	6
511 to 660	9
661 to 810	12
811 to 960	15
961 to 1110	18
1111 to 1260	21
1261 to 1410	24
1411 to 1560	27
More than 1560	30

Table 9: Height Restriction with respect to Transitional Area

Distance of the Inner Boundary of the Transitional Area (Outer Boundary of the Air Port) [m]	Maximum Permissible height above the elevation of the airport reference point [m]
Up to 21	0
22 to 42	3
43 to 63	6

64 to 84	9
85 to 105	12
106 to 126	15
127 to 147	18
148 to 168	21
169 to 189	24
190 to 210	27
More than 210	30

(2) No Radio Aerial, T.V. Antenna, Cell phone tower or such similar type of installations exceeding 52 m in height shall be erected without prior permission of the concerned Civil Aviation Authority.

(3) No building structure or installation exceeding the height indicated in the said Tables shall be permitted unless the applicant produces a 'No Objection Certificate' from the Airport Authority.

32. Off Street Parking Space.- (1) In all buildings including Apartment buildings or Housing Projects, Hotels, Restaurants and Lodges, business buildings, commercial buildings, Institutional buildings like hospitals, Educational buildings like schools and colleges, high-rise buildings or complexes etc. and all other non-residential activities provision shall be made for parking spaces as per the following requirements.

Table 10: Off-street parking space for different category of occupancies

Sl.No.	Category of building/ activity	Parking area to be provided as percentage of total covered area towards FAR
(1)	(2)	(3)
1	Shopping Malls, Shopping Malls with Multiplexes/ Cineplexes, Cinema Halls, Hotels, Kalyan Mandaps and Banquet Halls.	40
2	Restaurants, Lodges, Other Commercial Buildings, Assembly Buildings, Office Complexes, Hospitals, IT/ ITES Complexes, Retail shopping.	30
3	Residential Apartment Buildings, Housing Projects, Clinics, Nursing Homes, Institutional and Industrial Buildings.	25

Note:

- (i) Parking to be provided at ground level, basement or stilt exclusively for parking. Permissible services in these areas shall not be accounted for parking.
 - (ii) For residential apartments/housing projects, building constructed under EWS or LIG category, the parking requirement shall be at least 10% of the covered area in all floors.
- (2) The parking spaces may be provided in (for all schemes)
- (a) Basements and cellars
 - (b) On stilt floor
 - (c) Open parking area
 - (d) Exclusive multi-level parking or
 - (e) Roof top parking in case of commercial or IT or ITES and corporate building
 - (f) Stacked or Multi-level or Automated parking is also permitted.
 - (g) A combination of any or all of the above

NOTE: For parking purposes, single basement shall be allowed in case of plot size of 500 sqm. or more, and multiple basements shall be allowed in case of plot size of 1,000 sqm. or more. The roof top parking with car lift shall be allowed only in case of plinth area or roof area of 2,000 sqm. or more. For other than parking purposes, single basement may be allowed in plot size of less than 500 sqm. also subject to a maximum of 50% of the covered area.

(3) Off-street parking spaces shall be provided with adequate vehicular access to a street and the area of drives, aisles and such other provisions required for adequate manoeuvring of vehicles.

(4) If the total off-street parking space required under these regulations is provided by a group of property owners at a place for their mutual benefit, such parking spaces may be construed as meeting the off-street parking requirement, however, subject to the approval of the Authority. The Authority may also decide to develop such parking spaces and charge property owners to bear proportionate cost.

(5) Garage with locking facilities shall be included in the calculation of floor space for determining the requirement of parking space, unless this is provided in the basement of a building or under a building constructed on stilts with no external walls.

(6) The parking spaces to be provided shall be in addition to the open spaces (setback) required around a building under these regulations. However, parking may be provided in the front open space and other side open spaces without reducing the clear vehicular access way to less than 6.0 meters.

(7) Misuse of the area specified for parking of vehicles for any other use shall be summarily removed or demolished by the Authority.

(8) For parking spaces in basements and upper storey of parking floors, at least two ramps of minimum 3.6 m width or one ramp of minimum 5.4 m width and in maximum 1:10 slope shall be provided. Such ramps may be permitted in the side and rear setbacks after leaving 6 meter space for movement of fire-fighting vehicles

(9) Up to 10% of basement or stilt may be utilized for utilities and non-habitation purpose like A/C Plant room, generator room, electrical installations, laundry, etc.

(10) At least 20% of the parking in Housing Projects, apartment buildings shall be earmarked for visitors. The Visitors parking facility shall be open to all visitors.

(11) Every building except a residential building having less than four dwelling units will have parking space earmarked for ambulance, fire tender and physically challenged persons. Such spaces shall be clearly indicated by painting the purpose for which the parking space is reserved.

(12) In respect of Apartment Complexes or Building Block, in sites up to 750 sqm., the parking requirement shall be deemed to be met if the entire stilt floor is left for parking. A WC/ Toilet facility shall be provided for watch and ward in the stilt floor.

(13) Apart from use of Basement for Services or Parking or Storage, it may be used for other activities like library, study room, games room and laundry only in case of residential and institutional buildings.

33. Interior open space.- (1) At least one side of all the rooms intended for human habitation, if such room does not abut on the front or the rear or the side setbacks, shall abut on an interior open space whose minimum dimension shall be 3 m X 3 m in cases of buildings up to a height of 12 m. In cases where the height of the building is more than 12 m, the width of the interior open space shall be increased at the rate of one meter for every additional 3 (three) m height. This provision shall be applicable to all categories of buildings, namely, residential, apartment, commercial, institutional, administrative, assembly.

(2) For ventilating the spaces for water closets and bathrooms ventilation shafts shall be provided with size as provided under clause - 8.2.5(b), Group 1, Part-3 of the National Building Code of India (Published by Bureau of Indian Standards) as regulations for ventilation shaft.

34. Height exemption of a building.- The following appurtenant structures shall not be included in the height of the building.

- (a) Roof tanks and their supports (with support height not exceeding 1 m)
- (b) Ventilating, air conditioning, lift rooms and similar service equipment.
- (c) Stair cover (mumty) not exceeding 3.0 m in height and
- (d) Chimneys, parapet walls and architectural features not exceeding 1.2 m in height.

35. Exemption in Open space.- (1) Every open space provided either in the interior or exterior in respect of any building shall be kept free from any erection thereon and shall be open to the sky and no cornice, roof, or weather shade of more than 0.75 m in width shall overhang or project over such open space.

(2) A portico of up to 2.5 m width and 4.6 m length with a minimum height of 2.4 m from the plinth level may be permitted within the side setback. A garage is permissible at the rear end of side open space provided no openings are located on the side and rear boundary. Access to the top of the portico/garage should not affect the privacy of the neighbouring plot.

(3) The portico provided as above should not rest on the boundary wall and should be open to provide through access to the rear. In case the Portico is not a cantilevered one and supported by pillars the area shall be included in the FAR.

(4) A guard room, electric cabin, substation, ATM upto 10 sqm. shall be allowed in the mandatory open space subject to conditions that the same shall not obstructing the movement of fire tender and is of atleast 6 m wide.

36. Basement Cellar.- (1) Basements/cellars shall not be permitted in low lying area and without adequate drainage facilities to ensure drainage from the basement. Basement shall not be allowed in flood prone areas.

(2) Construction of basements/cellars may be allowed by the Authority in accordance with the provisions contained in the Master plan applicable to the concerned area.

(3) The basements/cellars shall only be put to the following uses:

- (a) Storage of household or other non-combustible material;
- (b) Strong room, bank cellars etc.;
- (c) Installation of air-conditioning equipment and other machines used for service and utilities of building;
- (d) Parking places.

(4) Basements/ cellars may be permitted to be constructed leaving the prescribed set back/ open space applicable to the building. Further, in case of apartment/ housing projects/ commercial/ corporate & IT/ITES buildings, the basements may be allowed to be constructed under the entire plot area leaving 3 meter space from the boundary of the premises subject to the following:-

- (i) In all such cases the owners have to indemnify the Authority against any damage caused by her/him/them to the adjacent property in the format given in Form III, appended in these Regulations.
- (ii) The portion of the basement projecting out of the building line shall flush with the ground.

(5) The basements shall be used exclusively for parking/ services/storage.

(6) The basement shall fulfil the following requirements:

- (a) Every basement shall be in every part at least 2.5 m in height from the floor to the soffit of the roof slab or ceiling;
- (b) Adequate ventilation shall be provided for the basement. The standard of ventilation shall be the same as required by the particular occupancy according to regulations. Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers, exhaust fans(one exhaust fan for 50 sqm. of basement area), air conditioning system etc.;
- (c) The minimum height of the ceiling of upper basement shall be 1.20 m and the maximum, 1.5 m above the average surrounding ground level;
- (d) Adequate arrangement shall be made, so that surface drainage does not enter the basement;
- (e) The walls and floors of the basement shall be water-tight and be so designed that the effect of the surrounding soil and moisture, if any, are taken in to account in design and adequate damp proofing treatment is given;
- (f) The access to the basement shall be separate from the main and alternative staircase providing access and exit from higher floors shall be provided. Where the staircase is continuous in the case of buildings served by more than one staircase, the same shall be of enclosed type serving as a fire separation from the basement floor and higher floor. Open ramps shall be permitted if they are constructed within the building line subject to provision of (d) above.
- (g) The ramp providing access to basement to be used for parking shall have a gradient not steeper than 1:10 and this shall not obstruct the clear vehicular and pedestrian movement around the building including movement of fire tender (6 m).
- (h) Basement shall be permitted within the setback lines subject to clearance from local bodies/departments concerned, Municipal Corporation and Fire Department. For high rise buildings it should be after leaving required 6 m from plot boundary.
- (i) 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.

- (j) For high rise buildings, the staircase of basements shall be of enclosed type having fire resistance rating (Table 1, Part IV of the National Building Code of India). 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 door with fire resistance rating as per the National Building Code of India as mentioned above.
- (k) For travel distance Table 11 given below shall be followed. If travel distance exceeds that given in the table below, additional staircases shall be provided.

Table 11: Travel Distance for Occupancy and Type of Construction

Sl. No.	Group of Occupancy	Maximum Travel Distance Construction	
		Type 1 and 2	Type 3 and 4
I	Residential	30.0	22.5
Ii	Educational	30.0	22.5
iii	Institutional	30.0	22.5
iv	Assembly	30.0	30.0
V	Commercial	30.0	30.0
Vi	Industrial	45.0	NA
Vii	Storage	30.0	NA
Viii	Hazardous	22.5	NA

Notes:

1. For fully sprinkled building, the travel distance may be increased by 50% of the values specified above
 2. Ramps shall be counted as one of the means of escape wherever permitted in the National Building Code of India.
- (l) In multi-storey 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.
- (m) 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.
- (n) 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.

- (o) 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 the National Building Code of India.
- (p) Mechanical extractors shall have an alternative source of supply.
- (q) 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.
- (r) 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 1910 and rules made thereunder. Boiler room shall be provided at the first basement along the periphery wall with fire resistance rating or shall be separated with the blast wall.
- (s) If cutouts are provided from basements to the upper floors or to the atmospheres, all sides cutout openings in the basements shall be protected by sprinkler head at close spacing so as to form a water curtain in the event of a fire.
- (t) 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.

37. Provision of Lift.- (1) Lift shall be provided for buildings above 10 m. height in case of apartments, Housing Projects, commercial, institutional and office buildings. However, provision of lift for EWS/LIG houses in Apartment/ Housing project building with a height less than 15 m may not be insisted.

(2) Lift shall be provided at the rate of one lift for twenty dwelling units, or part thereof for residential buildings and at the rate of one lift per one thousand sqm. or part thereof of built-up area per floor for non-residential buildings. Built-up area on ground floor and two upper floors shall be excluded in computing the above requirement. At least one lift in every building block shall be a stretcher lift.

(3) Notwithstanding anything contained in these regulations in case of building with 21 m or more in height, at least two lifts shall be provided.

(4) All lifts shall be inspected at least once a year by the agency designated by the Authority. The Authority can also outsource the inspection of lift.

(5) In case of car lift for roof top parking, there shall be at least two car lifts for 2000 sqm. of roof area and there shall be addition of one car lift for every 1000 sqm. of roof top parking area and fraction thereof.

38. Mezzanine.- Mezzanine floor may be permitted above any floor in all types of buildings up to an extent of one-third of the actual covered area of that floor. All Mezzanine floors shall be counted toward FAR calculation. It shall have a minimum height of 2.2 m.

39. Heritage Zone.- (1) The Authority may notify the Heritage Zones in consultation with the Archaeological Survey of India, State Department of Archaeology, Municipal Corporation and the Art Commission.

(2) Conservation of Heritage Buildings, Heritage Precincts and Natural features: Conservation of buildings, artefacts, structures, areas and precincts of historic and /or aesthetic and/or architectural and /or cultural significance (Heritage buildings and heritage precincts) and/or natural features of environmental significance shall be taken up by the Municipal Corporation in accordance with the relevant provisions in-force and those framed from time to time.

(3) The Handbook on Conservation of Heritage Buildings, 2013' published by Central Public Works Department, Ministry of Urban Development, Government of India, shall be referred to before taking up any building construction activity within the heritage precincts/streets or in the vicinity of notified heritage zones.

40. Coastal Regulation Zone- Land use and Buildings falling under the coastal zone shall be governed by the Coastal Regulation Zone Notification, New Delhi vide No.SO 19(E) dated 6.1.2011 and its amendments and replacement from time to time.

41. Barrier free access for the differently abled person, elderly and children.-

(1) **Applicability:** These regulations are applicable to all buildings and facilities used by the public such as educational, institutional, assembly, commercial, business, mercantile buildings and Housing Projects, etc. constructed on plots having an area of more than 2000 sqm. It shall not apply to private residential buildings. The guidelines in 'Handbook on Barrier Free and Accessibility, 2014', published by Central Public Works Department (CPWD), Ministry of Urban Development, Government of India, shall be considered, in addition to the following provisions.

(2) **Site development:** Level of the roads, access paths and parking areas shall be described in the plan along with specification of the materials.

(3) **Access Path/ Walk Way:** Access path from plot entry and surface parking to building entrance shall be minimum of 1800 mm. wide having even surface without any steps. Slope, if any, shall not have gradient greater than 5%. Selection of floor materials

shall be made suitably to attract or to guide visually impaired persons (Limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emit different sound to guide visually impaired persons hereinafter referred to as "guiding floor material").

(a) Finishes shall have non-slip surface with a texture traversable by a wheel chair.

(b) Curbs wherever provided should blend to a common level.

(4) **Parking:** For parking of vehicles of differently abled people the following provisions shall be made:

(a) Surface parking for two car spaces shall be provided near entrance for the physically handicapped persons with maximum travel distance of 30 m from building entrance.

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

(c) The information stating that the space is reserved for handicapped persons shall be conspicuously displayed.

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

(5) **Building requirements:** The specified facilities for the buildings for handicapped persons shall be as follows:

(a) Approach to plinth level: Every building must have at least one entrance accessible to the handicapped and shall be indicated by proper signage. This entrance shall be approached through a ramp together with stepped entry.

(i) Ramped Approach: Ramp shall be finished with non-slip material. Minimum width of ramp shall be 1800 mm. with maximum gradient 1:12, length of ramp shall not exceed 9 m having 800 mm high hand rail on both sides extending 300 mm beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50 mm.

(ii) Stepped Approach: For stepped approach width of tread shall not be less than 300 mm. and maximum riser shall be 150 mm. Provision of 800 mm high hand rail on both sides of the stepped approach similar to the ramp approach shall be made.

(iii) Exit/Entrance Door: Minimum clear opening of the entrance door shall be 900 mm and it shall not be provided with a step that obstructs the passage of a wheel chair user. Threshold shall not be raised more than 12 mm.

(iv) Entrance Landing: Entrance landing shall be provided adjacent to ramp with the minimum dimension 1800 mm X 2000 mm. The entrance landing that adjoins the top end of a slope shall be provided with floor

materials to attract the attention of visually impaired persons (limited to coloured floor material whose colour and brightness is conspicuously different from that of the surrounding floor material or the material that emits different sound to guide visually impaired persons hereinafter referred to as "guiding floor material"). Finishes shall have a non-slip surface with a texture traversable by a wheel chair. Curbs wherever provided must blend to a common level.

- (b) Corridor connecting the entrance/exit for the handicapped: The corridor connecting the entrance/exit for handicapped leading directly outdoors to a place where information concerning the overall use of the specified building can be provided to visually impaired persons either by a person or by signs, shall be provided as follows:
- (i) Guiding floor materials, shall be provided or devices that emit sound to guide visually impaired persons,
 - (ii) The minimum width shall be 1250 mm.
 - (iii) In case there is a difference of level, slope ways shall be provided with a slope of 1:12
 - (iv) Hand rails shall be provided for ramps/slope ways at a height of 800 mm.

(6) **Stair ways:** One of the stairways near the entrance/exit for the handicapped shall have the following provisions:

- (a) The minimum width shall be 1350 mm.
- (b) Height of the riser shall not be more than 150 mm and width of the tread 300 mm. The steps shall not have abrupt (square) nosing.
- (c) Maximum number of risers on a flight shall be limited to 12.
- (d) Hand rails shall be provided on both sides and shall extend 30mm on the top and bottom of each flight of steps.

(7) **Lifts:** Wherever lift is required as per the regulations, provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommended for passenger lift of 13 person capacity by Bureau of Indian Standards.

- (a) The lift should have a clear internal depth: 1100 mm; clear internal width: 2000 mm; entrance door width: 900 mm.
- (b) A handrail not less than 600 mm. long at 1000 mm. above floor level shall be fixed adjacent to the control panel.
- (c) The lift lobby shall be of an inside measurement of 1800 mm x 1800 mm or more.
- (d) The time of an automatically closing door shall be minimum 5seconds and the closing speed should not exceed 0.25 m/sec.

- (e) The interior of the cage shall be provided with a device that audibly indicates the floor the cage has reached and indicates that the door of the cage for entrance/exit is either open or closed.
 - (f) The control panel shall have marking in Braille to help visually impaired.
- (8) **Toilets:** One special Water Closet, in a set of toilets shall be provided for the use of handicapped with essential provision of washbasin near the entrance for the handicapped.
- (a) The minimum size shall be 1500 mm X 1750 mm.
 - (b) Minimum clear opening of the door shall be 900 mm and the door shall swing out.
 - (c) Suitable arrangement of vertical/horizontal handrails with 50 mm clearance from wall shall be made in the toilet.
 - (d) The Water Closet seat shall be 500 mm from the floor.
- (9) **Provision of W.Cs:**
- (a) In Buildings without Lift: Provision of special W.C. shall be made on all floors for buildings designed for ambulant disabled persons. For buildings designed for non-ambulant disabled special W.C. shall be provided at Ground Floor. Size of W.C. shall depend on the type of wheel chair used by the disabled.
 - (b) In Buildings with Lift: Provision of Special W.C. shall be made on all floors. Size will depend on the category of disabled for whom it has been provided.
- (10) **Drinking Water:** Suitable provision of drinking water shall be made for handicapped near the special toilet provided for them.
- (11) **Designing for Children:** In a building meant for the predominant use of the children, it is necessary to suitably alter the height of the handrail and other fittings and fixtures.
- (12) **Refuge:** Refuge shall be designed as an alternative to immediate evacuation of a building via staircases and/ or lifts for movement of disabled persons to areas of safety within a building, for them to remain there until the fire is controlled and extinguished or until rescued by the fire fighters.
- (a) Provisions of a refuge area that can safely hold one or two wheelchairs to be made at the fire protected stair landing on each floor.
 - (b) Hand Doorways shall be installed with clear opening width of 900 mm and regular compliance.
 - (c) The refuge area shall have an alarm switch installed between 900 mm and 1200 mm from floor level.
- (13) **Signage:** Appropriate identification of specific facilities within a building for the differently abled person shall be made with proper signage.

- (a) Signs shall be designed and installed so that they are easily legible by using suitable letter size (not less than 20 mm high) for the benefit of people with hearing disabilities.
- (b) For visually impaired persons, information board in brail shall be installed on the wall at a suitable height and it should be possible to approach them closely.
- (c) To ensure safe walking, there should not be any protruding sign which creates obstruction in walking.
- (d) Public Address System shall be provided in busy public areas.
- (e) The symbols/information shall be in contrasting colour and properly illuminated because people with limited vision may be able to differentiate amongst primary colours.
- (f) International Symbol Mark for wheel chair be installed in a lift, toilet, staircase, parking areas, etc., that have been provided for the differently abled.

42. Rainwater harvesting system.- (1) Provision of rainwater harvesting is mandatory for all sizes of plots which are more than 300 sqm. in area including open spaces. Detailed technical specification for selection of appropriate rainwater harvesting system has been provided in Annexure V.

(2) The provisions for rainwater harvesting in various building categories are given below:

Table 12: Rainwater Harvesting provisions for various building categories

Category / Use	Provisions to be Made	Other Conditions
Residential Plotted Housing		
New Proposals	Construction of Rainwater Harvesting Structure	Emphasis on both storage and reuse
Housing Projects		
New Proposals	i. Construction of Rainwater Harvesting Structure ii. Concrete paving to be avoided and permeable materials to be used for all open parking spaces	Indicate the system of Storm Water Drainage, Rainwater Harvesting System and Recharge Well
Public and Semi Public Buildings		
All Proposals	i. Shall have Rainwater Harvesting System and Storage ii. Shall have Recharge pits	Emphasis on both storage and reuse
Commercial / Mixed Use		

All Proposals	<ul style="list-style-type: none"> i. Construction of Rainwater Harvesting System ii. Soft landscape provisions and open spaces with percolation pits. iii. Common Treatment plan to be part of the integrated development 	<p>Indicate the system of Storm Water Drainage, Rainwater Harvesting System and Recharge Well.</p> <p>Emphasis on both storage and reuse.</p>
Industrial		
All Proposals	<ul style="list-style-type: none"> i. Construction of Rainwater Harvesting System ii. Soft landscape provisions and open spaces with percolation pits. iii. Use of abandoned bore wells for recharging of ground water iv. Common Treatment plan to be part of the integrated development 	<p>Indicate the system of Storm Water Drainage, Rainwater Harvesting System and Recharge Well.</p> <p>Provision to be made not to inject contaminated water into recharge structures in industrial areas.</p> <p>Care to be taken to keep such structures away from sewer lines, septic tanks, soak pits, landfill and other sources of contamination.</p>
Other Proposals	Similar as above	Similar as above

(3) Recharging of ground water is mandatory for all types of buildings having a plot area more than 500 sqm. and above. The ground water recharge shall also be mandatory for open spaces like parks, parking, plazas and playgrounds. The dimension of recharging pits/trenches shall be at least 6 cubic meters for every 100 sqm. of roof area.

(4) Enforcement and Monitoring: Inspection of Rainwater Harvesting system shall be done before issuing Completion Certificate or NOCs for the structures.

43. Rooftop Solar Energy Installation.- (1) Norms for Rooftop PV systems

Installation: All residential plotted housing with plot area of 300 sqm. and above, educational, institutional, commercial, industrial, mercantile and recreational buildings having plot size of 500 sqm. and above and all housing projects shall be installed with a minimum generation capacity of 5% of the connected load or 20 W/sq. ft. for available roof space, whichever is less.

(2) **Norms for Installation of Solar Assisted Water Heating System:** All building of the following category may provide Solar Water Heating System and Solar Roof Top System as specified below:

(a) Solar Water Heating System: Following standard for determination of the capacity of solar water heating system to be adhered to:

- (i) Hospital :10 litres/bed
- (ii) Hotels 5 star :15 litres/room
- (iii) Hotel other than 5 star :10 litres/bed
- (iv) Police/ Army/ Barrack :200 LPD
- (v) Canteen/ Messes :200 LPS
- (vi) Hostel :10 litres/student
(School, Colleges & Other Institutions where hot water is needed)
- (vii) Laboratory& Research Institutions :100 LPD
- (viii) Residential Structures: :100 LPD/flat
(Plinth area 200 sqm. or above):

(ix) Guest Houses/ Banquet Hall/Circuit House :200 LPD

(b) Off Grid/ Grid connected Solar Roof Top System:

- (i) Individual household or above :500 watt
(Plinth area more than 300 sqm. Minimum)
- (ii) Hotel Five star :Minimum 5 KWp
- (iii) Other hotels :Minimum 2 KWp
- (iv) Commercial building :2 KWp.
(Covered area more than 500 sqm.)

(3) **Installation of Solar Water Heating System**

- (a) **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 sqm. All new buildings of above said categories must complete installation of solar water heating systems before obtaining necessary license to commence their business.
- (b) **Existing Buildings:** Installation of Solar Assisted Water Heating Systems in the existing building shall be mandatory at the time of change of use to above said category provided there is a system or installation for supplying hot water.
- (c) **Specifications:** Installation of Solar Assisted Water Heating Systems shall conform to BIS specification IS 12933. The solar collectors used in the system shall have BIS certification mark.

- (d) **Auxiliary System:** Wherever hot water requirement is continuous, auxiliary heating arrangement either with electric or oil of adequate capacity can be provided.

44. Water re-use and Recycling.- All building having a minimum discharge of 10,000 liters and above per day shall incorporate waste water recycling system. The recycled water should be used for horticultural purposes.

45. Provisions for Green Buildings.- (1) All buildings on various plot sizes above 300 sqm. shall comply with green norms and conform to the following requirements mandatory for sanction of building permit:

- (a) Water Conservation and Management
 - (i) RWH
 - (ii) Low water consumption and plumbing fixtures
 - (iii) Waste water recycling & reuse
 - (iv) Reduction of hardscape
- (b) Solar Energy Utilization
 - (i) Installation of solar PV cells
 - (ii) Installation of solar assisted water heating systems
- (c) Energy Efficiency
 - (i) Low energy consumption lighting fixtures
 - (ii) Energy efficiency in HVAC
 - (iii) Lighting of common areas by solar energy/ LED devices
- (d) Waste Management
 - (i) Segregation of waste
 - (ii) Organic waste management

(2) Applicability: Provisions and applicability on various plot sizes (Residential/ Non-residential) are provided below

Table 13: Applicability of Green Building Provisions

Plot Size	Provision for Residential use	Provision for Non-Residential use
Upto 300 sqm.	Nil	Nil
300-500 sqm.	1a, 2a, 2b, 4a	1a, 2b, 4a
500-1000 sqm.	1a, 1c, 2b, 3c, 4a	1a, 1c, 2a, 2b, 3c, 4a
1000-3000 sqm.	1a, 1c, 1d, 2a, 2b, 3b, 3c, 4a	1a, 1c, 1d, 2a, 2b, 3b, 3c, 4a
> 3000 sqm.	1a, 1b, 1c, 1d, 2a, 2b, 3a, 3b, 3c, 4a, 4b	1a, 1b, 1c, 1d, 2a, 2b, 3a, 3b, 3c, 4a, 4b

(3) In pursuance of the National Sustainable Habitat Mission on Energy Efficiency in Building, the Authority shall encourage for adoption of LEED / GRIHA, IGBC and ECBC (for Odisha ECBC Codes and Guidelines -2010 refer Annexure VI) rating certification for new and existing buildings. The incentive for the same would be based on applicable state government policy as applicable time to time.

46. Signs and outdoor display structures.- (1) Signs and outdoor display structures shall be governed by the relevant provisions of the Odisha Municipal Corporation Act, 2003 or the Odisha Municipal Act, 1950.

(2) Within the <XX> Development Plan area where no specific guideline for the above structures is framed; the Authority shall prescribe the guidelines with approval of Government.

47. Reference to Standards.- The standards related to water and sanitation requirements and uses, fire protection and fire safety requirements shall be referred to as given at Annexure VII, Annexure I & II and Annexure IV respectively.

PART V: REQUIREMENT OF SPECIAL OCCUPANCY

48. Apartment Buildings/ Housing Projects.- (1) Apartment building shall be permitted only on plots of size more than 500 square metre.

(1) In apartment building with joint ownership of land the owner /developer shall provide floor space for house owner's society office /assembly at the rate of 1 sqm. per flat provided that the minimum area shall not be less than 12 sqm.

(2) One staircase for every 6 dwelling units or fraction thereof in a floor shall be provided.

(3) The minimum width of approach road to the plot shall be 9 m for non-high rise and 12 m for high-rise apartment buildings.

(4) Construction of EWS housing is mandatory for the Apartment Buildings/ Housing Projects with plot size of 2,000 sqm. and above. The construction of floor area under EWS and LIG housing shall be in accordance with the provision of Housing for All Policy, 2015, revised and notified by the State Government from time to time.

(5) Construction of Apartment or Housing Projects schemes for affordable housing shall be in compliance with the policy on Housing for All in Urban Areas of Odisha, 2015 and as amended from time to time.

49. Outhouse.- An outhouse with zero rear and one side set back may be permitted on a plot having an area not less than 150 sqm., provided that:

(1) The coverage of the outhouse shall not exceed 30 sqm. and the height shall not exceed 3 m;

(2) The built up area of the outhouse and that of the main building together shall not exceed the permissible FAR for the concerned plot;

(3) The outhouse shall not cover more than one third of the width and more than one fourth of depth of the plot and shall not abut any public road;

(4) A minimum 1.5 m strip of land shall be kept open to the sky between the main building and the outhouse;

(5) No opening either in the form of windows or doors or ventilators shall be provided to the adjoining properties;

(6) Outhouses with sloping roof would only be permitted. In no case permission for outhouses would be granted with reinforced concrete cement flat roof.

50. Requirements for Basti Area.- (1) In a Basti area, permission to erect a building may be given on the basis of the available width of means of access, provided that where the width of means of access is 4.5 m or less, the coverage shall be limited to 50% of the plot area and the maximum height of the building limited to two storey and the FAR limited to 1.00.

(2) For plots with narrow width (7.5 m) zero setbacks may be allowed on one side with a passage of one meter on the other side.

(3) The rear setback and front setback shall not be less than 3.0 m and 1.5 m respectively.

(4) In each house on a Basti plot having one side setback, an internal courtyard of not less than 10 sqm. in area and not less than 2.5 m in width shall be provided in such a way that at least one wall of each living room abuts such court-yard or a verandah opening to such court-yard.

(5) Addition/alteration of existing building –

(a) Construction proposed in all existing building which has been divided into parts by partition/sale or otherwise may be permitted (without insisting on front, rear or side setbacks) subject to fulfilment of following provisions:-

(i) Provide coverage of the upper floor shall not exceed 75% of the plinth area of existing floor for organizing an open terrace to facilitate light and ventilation to habitable rooms.

(ii) Separate arrangement shall be made for drainage of the storm water

(iii) Ventilators may be permitted above lintel height on production of no objection certificate from the owners of the adjacent plot to which the ventilators abuts. But no window overlooking others property may be permitted without obtaining his written consent in shape of an affidavit.

(b) For constructions on first and subsequent floors on existing floors in a Basti area, constructions on zero setbacks on one sides may be permitted. Provided that the construction does not lead to closing down of windows/ ventilators/ skylights of the neighbouring plot which are already existing lawfully. While according permission without providing setbacks, no-objection certificate in shape of an affidavit from the side neighbour, where setback is not provided may be obtained and reasons for the same may be recorded in writing.

51. Semi- detached and row housing.- (1) Owners of adjacent similar dimension plot abutting a road may be permitted to construct row or semi-detached buildings.

(2) The orientation of the row or semi-detached building shall preferably be such that the prevailing summer breeze can be availed by each dwelling unit.

(3) For semi-detached buildings over two adjacent plots, the setbacks, the height and the FAR shall be regulated by treating both the plots as one.

(4) In case of row housing, the length of a row shall not exceed 50 m along the road on which such houses abut. In case, the dwelling units in a row are scattered the maximum length of the road shall be 100 m.

(5) For row houses the ground coverage shall not be allowed to exceed 60% and the FAR more than 1.75.

(6) The minimum size of the plot on which a unit of a row housing may be allowed shall be 30 sqm.

52. Shop cum residence.- Where plots are allotted in a row for shop-cum-residential purpose the Authority may allow construction of shop-cum-residential building without any side set backs up to a depth of 10 m from the front exterior wall. Provided that no part of the building up to said depth is used for residential purpose on the ground floor. No building exceeding 12 m in height shall be allowed to be constructed as a shop-cum-residential plot, unless so permitted under the zonal Master Plan, provided that the shop-cum-residence shall have 2/3rd of the total floor area used for shops. The FAR and other parameters shall conform to that specified for commercial buildings.

53. Assembly Buildings (Cinemas, Theatres, Multiplex, Auditorium, Museum, Exhibition hall, Gymnasium, Stadia, Restaurant, Club room, etc.-

(1) The relevant provisions of the Odisha Cinemas (Regulations) Rules, 1954 shall apply for planning, designing and construction of Cinema and Theatre buildings.

(2) No permission for construction of a assembly building to be used as a cinema hall, theatre or auditoria for cultural show shall be granted unless the construction of such buildings conforms to the provisions of the Odisha Cinemas (Regulation) Act, 1954 and the Odisha Cinematograph Rules, 1939, the National Building Code of India (as amended time to time) or any other law in the subject for the time being in force in the State.

(3) No permission to construct a cinema hall on a site shall be given unless such site has been approved by the Authority for the purpose.

(4) Excepting provision for restaurant and incidental facilities no other use shall be permitted in a cinema building.

(5) All cinema, theatre or auditoria buildings shall conform to IS: 4898-1968 and acoustics design of such buildings shall adhere to the requirements of IS: 2526-1963.

(6) Exits and fire safety requirements shall be in accordance with Part IV (Fire and life safety) of the National Building Code of India.

(7) Parking spaces should be provided as per the provisions of these regulations.

(8) Requirements of water supply, drainage and sanitation shall be as per provisions of the National Building Code of India and as amended from time to time.

54. Liquefied Petroleum Gas or Gas Cylinder Godown- (1) Vacant space shall be maintained at all times, with the following distances for storage shed used for the storage of liquefied petroleum gas cylinders between any building, public space, public road or any adjoining property which may be built upon and the said storage shed.

Table 14: Minimum Distances required for Storage shed of LPG cylinders

Quantity of compressed gas in Cylinders (Kg)	Minimum Clear distance to be kept (m)
0-100	1
101 -1,000	3
1,001- 4,000	5
4,001-8,000	7
8,001-12,000	9
12,001-30,000	12
Over 30,000	15

(2) Notwithstanding anything contained in the conditions specified above, cylinders containing liquefied petroleum gas exceeding 100 Kg but not exceeding 300 Kg may be kept in a storage shed forming part of, or attached to building, if it is separated there from by a substantial partition and the only means of access to it is from outside. Such a storage shed shall not be situated under any staircase or near other entrances to or exits from the rest of the building or other buildings. A shed used for storage of liquefied petroleum gas cylinders shall be surrounded by a suitable fence to prevent unauthorized persons from having access to the shed.

55. Petrol Pump.- (1) Minimum distance from the road intersections shall be:

- (A) For minor roads having less than 30 m width - 50 m.
- (B) For major roads having width 30 m or more -100 m.

(2) The minimum distance of the property line of petrol pump from the centre line of the road shall not be less than 15 m on roads having less than 30 m width. In case of roads having 30 m or more width, the width of the road shall be protected.

(3) Plot size:

- (A) Only for filling stations -30 m X 17 m
- (B) Filling-cum-service station 36 m X 30 m
- (C) Frontage of the plot shall not be less than 30 m.

(4) Other conditions:

- (a) New petrol pump shall not be located on roads having less than 30 m width.
- (b) Every petrol pump shall adhere to the norms as prescribed in IRC Code: 12-2009 (amended time to time).
- (c) Every petrol pump shall have public toilets with Water Closet (WC) separately for men and women.

(5) (a) Other controls

- (i) Ground coverage - 20%
- (ii) FAR - 0.20

- (iii) Max. Height -7 m
- (iv) Canopy equivalent to permissible ground coverage within setback line,
- (v) Front set back - minimum 6 m
- (b) Other regulations
 - (i) NOC from Explosives/Fire Department
 - (ii) License from the District Magistrate
 - (iii) Ground coverage will exclude canopy area
- (c) Compressed Natural Gas (CNG) mother station
 - (i) Plot size (Max)- 36 m X 30 m
 - (ii) Maximum ground coverage - 20%
 - (iii) Maximum height-7 m (single storey)
 - (iv) Building component- control room/office/dispensary, store, pantry and W.C.

56. Farm House.- (1) For construction of Farm House Building in Agriculture use Zone, minimum size of plot shall not be less than 1.00 hectare.

(2) Maximum coverage and FAR shall be as given in the table below:

Table 15: Maximum Coverage and FAR

A	Maximum permissible ground coverage for all types of activity	15 percent
B	Maximum permissible FAR	0.25
C	Residential accommodation of watch and ward/maintenance staff	100 sqm.
D	Maximum height	7 m.
E	Setbacks	Front/side abutting road 15.0 m and all other sides 9.0 m.
F	Maximum permissible ground coverage for all types of activity	15 percent

(3) Other Provisions: Minimum 65% of the total area of the farmhouse shall be under plantation/cultivation. At least 100 trees per hectare shall be planted out of which at least 50 percent shall be evergreen trees.

(4) Water supply, Sewerage and drainage:

- (a) In case of a plot for a farmhouse having dwelling units, the owner thereof shall be responsible to make lawful arrangements for potable water.
- (b) The owner shall be responsible to provide drains in the farm house to be used for rain water and in case of dairy farm open or closed sanitary drains to clean sheds, as may be required by the Authority.

(c) The owner shall be responsible to provide septic tank with necessary disposal trenches for disposal of human and animal waste in the farmhouse within his own premises.

(5) Electrification - The owner of a farmhouse shall obtain electric connection directly from the appropriate authority authorized for distribution on such terms and conditions at his own cost as decided by the appropriate Authority from time to time.

PART VI: INTEGRATED TOWNSHIP

57. Large Projects.- (1) Integrated Townships with minimum 10 ha of land having access from minimum 30 m R/W road shall be allowed. The road shall have adequate provision for cycle track, footpath, covered drain, plantation, street light and underground utilities.

(2) The integrated Township shall be permitted in Residential / Public & Semi-Public Use Zones.

(3) Permissible land use within the township (%)

(a) Residential - 45-50

(b) Industrial (Non-polluting) - 8-10

(c) Commercial – 2-3

(d) Public & Semi-Public – 6-8

(e) Recreational – 12-14

(4) Other regulations for approval of Integrated Township

(a) At least 10% of the total area shall be reserved for parks and open space. It shall be developed and maintained by the developer.

(b) At least 5% of the site area shall be reserved for public and semi-public use and shall be handed over to the Authority free of cost and the same shall be allotted by the Authority for development either to the developer or others on lease basis.

(c) The FAR shall be calculated on the total area.

(d) Roads shown in Master Plan shall be incorporated within the plan and shall be handed over to the Local Authority free of cost after development.

(e) The maximum permissible FAR and maximum permissible ground coverage shall be 2.75 and 40% respectively.

(f) Built up area shall be earmarked for EWS / LIG as per the Housing for All Policy, 2015 as notified by Government from time to time. The cost and method of allotment of such houses may be decided by the Authority.

(g) Compensatory FAR: The developer shall be entitled to receive additional FAR as per the Housing for All Policy, 2015 as notified by Government from time to time. The cost and method of allotment of such houses may be decided by the Authority. This additional FAR can be utilized in the same project subject to maximum FAR of 3.5, or where there is difficulty in utilizing the higher FAR in the same project, the developer shall be entitled to receive TDR for the unutilized Compensatory FAR which he may utilize at a different location or transfer to third parties subject to guidelines to be issued by the Government in this regard.

- (h) At least one of the major interconnecting roads shall be 18 m R/W and shall be open ended.

PART VII: MULTI-STOREYED/HIGH-RISE BUILDINGS AND HOUSING PROJECTS SCHEMES/APARTMENTS: ADDITIONAL REQUIREMENTS

58. Restriction on construction of Multi-storeyed/high-rise building.-(1)

Construction of multi storeyed/high-rise building shall not be permitted in villages/wards/municipalities/planning areas specified by the State Government. The Authority may include any other areas for prohibition of high-rise building from time to time.

(2) The Authority may restrict construction of multi storeyed/high-rise buildings in any other area on the basis of objective assessment of the available infrastructure and planning needs after obtaining due approval of the State Government.

(3) No multi storeyed/high-rise building with a height of 15 m and more shall be allowed to be constructed:

- (a) with approach road less than 12 m width; and
- (b) on plot of size less than 2000 sqm.

59. Main Entrance.- (1) The main entrance to the premises shall not be less than 6 (six) m in width in order to allow easy access to fire engine. The gate shall fold back against the compound wall of the premises, thus leaving the exterior access way, within the plot, free for the movement of fire service vehicles. If archway is provided over the main entrances, the height of the archway shall not be less than 5 (five) m.

(2) For multi-storied/high-rise Housing Projects scheme on one plot, the access way within the premises shall not be less than 7.5 (seven and half) m in width and between individual building blocks, there shall be an open unbuilt space of 6 (six) meters.

(3) For multi-storied/high-rise housing project schemes on one plot, the approach road to the site shall be minimum 18 m wide.

(4) The space set apart for providing access within the premises shall, in no case, be included in the calculation of requirements pertaining to parking spaces and other amenities required to be provided for the building.

(5) Every access way shall be properly drained and lit to the satisfaction of the Authority. Manhole covers or any other fittings laid within the right of way of the access way shall be flushed with the finished surface level of it so as not to obstruct safe movement of men and vehicles.

(6) Reconstruction, addition or alteration to any high-rise building shall not be taken in a manner which shall reduce the width of the access way to a level below the minimum prescribed limit under these regulations.

60. Peripheral Open Spaces including set-back for Tower-like Structures.—

Structures shall be deemed to be tower-like structures when the height of the tower-like portion is at least twice the height of the broader base at ground level.

For tower-like structures, as an alternative to open spaces shall be as below:

- a) Up to a height of 24 m, with one set-back, the open spaces at the ground level, shall be not less than 6 m;
- b) For heights between 24 m and 37.5 m with one set-back, the open spaces at the ground level, shall be not less than 9 m;
- c) For heights above 37.5 m with two set-backs, the open spaces at the ground level, shall be not less than 12 m; and
- d) The deficiency in the open spaces shall be made good to satisfy through the setbacks at the upper levels; these set-backs shall not be accessible from individual rooms/flats at these levels.

61. Building Components.- (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 1 m in width. Doorways shall be not less than 2 m in height. Doorways for bathrooms, water closet, stores etc. shall be not less than 0.75 m wide.
- (c) Exit doorways shall open outwards, that is, away from the room but shall not obstruct the travel along any exit. No door, when opened, shall reduce the require width of stairway or landing to less than 0.9 m, overhead or sliding doors shall not be installed.
- (d) Exit door shall not open immediately upon a flight or stairs, a landing equal to at least the width of the door shall be provided in the stairway at each doorway, level of 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.
- (g) Revolving doors shall not be provided as a means of fire exit.

(2) 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 sqm. 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 2 hour.

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

Table 16: Type of Building and Staircase Width

Type of Building	Width (m)
Residential buildings (dwellings)	1.0
Residential Hotel Buildings	1.5
Assembly buildings e.g. auditorium, theatres and cinemas	2.0
Educational buildings up to 30 m in height	1.5
Institutional buildings like hospitals	2.0
All other buildings	1.5

- (d) The minimum width of treads without nosing shall be 0.25 m 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 0.19 m in the case of residential buildings and 0.15 m 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 0.9 m from the center of the tread.
- (f) The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.2 m.
- (g) Access to main staircase shall be gained through adequate fire resistance rating (Table 1, Part IV of the National Building Code of India, revised time to time) 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 0.5 m 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 floor. 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 0.5 m X 0.5 m 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, Part IV of the National Building Code of India revised time to time) or through a fire protected corridor.
- (3) **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 there in.
 - (d) Walls of lift enclosures and lift lobby shall have fire rating of 2 hour; (Table 1, Part IV, of the National Building Code of India revised time to time); lifts shall have a vent at the top of area not less than 0.2 sqm.
 - (e) Lift car door shall have a fire resistance rating of 1 hour.
 - (f) Lift lobby doors in lift enclosures shall have fire resistance as per Table 1, Part IV, of the National Building Code of India revised time to time
 - (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 as suggested in Annexure IV (Fire Protection and Fire Safety Requirements) with self-closing door with fire resistance rating. 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 the National Building Code of India, Chapter 4 Fire and Life Safety Clause 4.10 Pressurization of Staircases (Protected Escape Routes)

(4) Ramps:

- (a) The ramp to basement and parking floors shall not be less than 7.2 m wide for two way traffic and 4 m wide for one way traffic, provided with Gradient of 1:10 for cars and 1:15 for heavy vehicles. At curved portions of the ramp or for circular ramps the slope should not be more than 1:12.
- (b) Ramp may also be provided in setback area which can be sloped considering unhindered movement of fire Engine and in no case the gradient shall be less than 1: 10.
- (c) All structural design/safety aspects as per latest BIS Codes & National Building Code of India shall be complied along with consideration of weight of Fire Engine & its maneuverings.
- (d) The minimum width of the ramps in hospitals shall be 2.4 m for stretcher and not for vehicular movement
- (e) In this case Handrails shall be provided on both sides of the ramp.
- (f) Ramps shall lead directly to outside open space at ground level or courtyards or safe place.

(5) 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 be 1.5 m.
- (c) Where stairways discharge through corridors and passageways, the height of corridors and passageways shall be not less than 2.4 m.

(d) All means of exit including staircases lifts lobbies and corridors shall be ventilated.

(6) Glass Façade/ Service Ducts/Shafts/ Refuge Area/ Vents

- (a) An Opening to the glass façade of min. width 1.5 m and height 1.5 m 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 must be separated internally by a smoke/ fire seal which is of non-combustible material having a fire resistance rating of not less than 2 hours.
- (f) Service ducts and shafts shall be enclosed by walls and doors with fire resistance rating. All such ducts or 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) Glass quality and Practice of use of Glass in buildings shall have to be in conformity with the BIS codes as given in Table 17 below:

Table 17: Glass quality and Use of glass in buildings

IS Code	Specifications
2553 (Part 1):1990	Specification for safety glass: Part 1 General purpose (<i>third revision</i>)
2835:1987	Specification for flat transparent sheet glass (<i>third revision</i>)
438:1994	Specification for silvered glass mirrors for general purposes (<i>second revision</i>)
5437:1994	Specification for figured rolled and wired glass (<i>first revision</i>).

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

(7) Building Services

(a) Staircase and Corridor Lighting

- (i) 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 individual control of the light points, if any.
- (ii) 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.
- (iii) Emergency lights shall be provided in staircase and corridor or passageway, horizontal exits, refuge area; and all wires and other accessories used for emergency light shall have fire retardant property.

(b) Electrical Services

- (i) The electric distribution cables or 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.
- (ii) 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.
- (iii) The provision of dedicated telecommunication ducts for all new building proposals is mandatory for conveyance of telecommunication and other data cables.
- (iv) 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 the National Building Code of India, chapter 4 Fire and Life Safety).

- (c) 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 and circuits stated above simultaneously. If the stand-by pump is driven by diesel engine, the generator supply need not be connected to the stand-by pump.

- (d) Air-conditioning: Air-conditioning shall conform to the following:
- (i) Escape routes like staircases, common corridors, lift lobbies, etc. shall not be used as return air passage.
 - (ii) The ducting shall be constructed of substantial gauge metal in accordance with good practice.
 - (iii) 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.
 - (iv) 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.
 - (v) Metallic ducts shall be used even for the return air instead of space above the false ceiling.
 - (vi) Where plenum is used for return air passage, ceiling and its fixtures shall be of non-combustible material.
 - (vii) 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.
 - (viii) Air ducts serving main floor areas, corridors, etc. shall not pass through the staircase enclosure.
 - (ix) 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.
 - (x) 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:
 - A. 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.
 - B. When the automatic fire alarm operates, the respective air-handling units of the air-conditioning system shall automatically be switched off.
 - C. The vertical shaft for treated fresh air shall be of masonry construction.

- D. The air filters of the air-handling units shall be of non-combustible materials or fire rated (Refer Table 1 of Part IV of the National Building Code of India)
- E. The air-handling unit room shall not be used for storage of any combustible materials.
- F. 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.
- G. 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 aluminum sheeting) at least 3.2 mm thick and which would not readily conduct heat.

(e) Transformers:

- (i) 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.
- (ii) 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.
- (iii) 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.
- (iv) The electric sub-station shall be located in a separate building in accordance with sub-rule (1) of rule 68 and clause (a) of sub-rule (1) of rule 64 of the Indian Electricity Rules 1956.
- (v) 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 fire-fighting 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 equipments to and from sub-station.

- (vi) Fire regulations – The installations shall be carried out in conformity with the local regulations and rules made thereunder wherever they are in force. At other places the National Building Code of India shall be followed.
 - (f) Gas supply:
 - (i) 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.
 - (ii) 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 cu.m per minute per sqm. of hood protected area. It should have grease filters using metallic grill to trip oil vapours escaping into the fume hood.
 - (iii) Note: For detailed information on gas pipe installations, reference may be made to Para.9 'Plumbing Services, Section 3 Gas Supply', of National Building Code of India.
 - (iv) 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.
 - (v) 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 lighter than air.
-

- (g) Boiler Room: Further, the following additional aspects may be taken into account in the location of Boiler/Boiler Room:
- (i) The boiler shall not be allowed in sub-basement but be allowed in the first basements away from the escape routes.
 - (ii) 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.
 - (iii) The boiler room shall be provided with fresh air inlets and smoke exhausts directly to the atmosphere.
 - (iv) 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.
 - (v) 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.
- (h) Helipad: Buildings above 200 m in height, helipad may be provided.

(8) 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 development control norms provided in the Master Plan of Delhi
- (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.

62. Exit.- (1) Every multi-storey/high-rise building meant for human occupation or assembly, shall be provided with exit sufficient to permit safe escape of the occupants in case of fire or other emergencies.

(2) An exit may be a door-way, corridor, passage way to an internal or external staircase or to a verandah or roof or terrace having access to a street.

(3) Exits shall be so arranged as to provide continuous means of access to the exterior of a building or exterior open space leading to a street without passing through any occupied unit.

(4) Exits shall be so located that the travel distance on the floor shall not exceed twenty meters in case of residential, educational, institutional and hazardous occupancies and thirty metres in the case of assembly, business, mercantile, industrial and storage occupancies. Wherever more than one exit is required for a floor of a building, exits shall be placed at a reasonable distance from each other as possible. All the exits shall be accessible from the entire floor area at all floor levels.

(5) There shall be at least two exits serving every floor and at least one of them shall lead to a staircase.

(6) The width of every exit shall not be less than one metre and shall be provided as per the following table.

Table 18: Number of Occupants as per type of Occupancy

Sl. No.	Type of occupancy	Number of occupants per unit exit	
		Staircase	Terrace
(1)	(2)	(3)	(4)
1	Residential	25	75
2	Mixed and other uses	50	75

Explanation:

- (a) Lifts and escalators shall not be considered as an exit.
- (b) 'Travel distance' means the distance from any point in the floor area to any exit measured along the path or egress except that when the floor areas are sub-divided into rooms, used singly or of rooms and served by suite corridors and passage, the travel distance may be measured from the corridor entrance of such rooms or suites to the nearest staircase or verandah having access to the street.

63. ICT Landing Points.- Every multi-storeyed/ high-rise building complex shall have provision for Information and Communication Technology (ICT) landing point in the form of a room near the main entrance gate of dimension not less than 3 m x 4 m and having 3 m clear height. The room shall have two fire proofs doors of 1.2 m width opening

outwards along with adequate ventilation in the form of windows/ ventilators. Such room shall not be counted in coverage and FAR calculations.

64. Occupancy of the Building.- In addition to the general provisions of occupancy, in case of multi-storeyed or high-rise buildings, apartments and Housing Projects schemes, Structural Stability certificate from the registered technical person/project management organisation shall be furnished after due certification by the appropriate agencies or institutions.

65. Structural Safety Design, Standards and other requirements.-

(1) **Structural Design:** The structural design of foundation, masonry, timber, plain concrete, reinforced concrete, pre-stressed concrete and structural steel shall be carried out in accordance with Part-VI structural design, section 1 loads, section 2 foundation, section 3 wood, section 4 masonry, section 5 concrete, section 6 steel and section 7 Prefabrication systems of the National Building Code of India, taking into consideration all relevant Indian Standards prescribed by Bureau of Indian Standards for general structural safety, for cyclone or wind or storm protection, for earthquake protection and for protection of landslide hazard. (Refer to Annexure VIII for list of relevant Indian Standards)

(2) **Quality of Materials and Workmanship:** All material and workmanship shall be of good quality conforming generally to the accepted standards of Public Works Department and Indian standard specification and codes as included in Part-5 of Group-1 Building Materials and Part-7 of Group-3 Construction practices and safety of the National Building Code of India.

(3) **Alternative Materials, Methods of Design and Construction and Tests:** The provisions of these regulations are not intended to prevent the use of any material or method of design or construction not specifically prescribed by these regulations provided any such alternative has been approved. The building materials approved by B.I.S. or any statutory body will form part of the approved building material and technology as part of the regulations.

(4) **Building Services:**

(a) The Planning design and installation of electrical installations, air conditioning installation of lifts and escalators can be carried out in accordance with Part-8 of Group-4 Building Services, section1- Lighting and Ventilation, section 2 Electrical and Allied Installations, section 3 Air conditioning and heating, section-4 acoustics, sound insulation and noise control, section 5 installation of lifts and escalators of the National Building Code of India.

(b) The requirements of electric sub-station and the provision of electric sub-station shall also require approval from the concerned Authority (i.e., the Electricity Board).

(5) **Plumbing Services:** The planning, design, construction and installation of water supply, drainage and sanitation and gas supply system shall be in accordance with Part-9 of Group-5, Plumbing Services, section 1 water supply, drainage and sanitation (including solid waste management) and section 2 gas supply of the National Building Code of India.

PART VIII:

REGULATIONS FOR INDUSTRIAL TOWNS AND SEZs

66. Classification.- All industries may be classified under prohibited and allowed categories subject to permissibility in various land use Zones. In addition, standards prescribed by the Orissa Pollution Control Board, conditions regarding maximum number of workers and sanctioned power load are required to be met (Annexure IX). Industries listed under the prohibited category shall not be allowed to be set up in the urbanizable limits delineated in the CDP.

67. Permissibility of Industrial Units in different Use Zones and Use premises.- For classification purposes, the limits of various parameters shall be fixed according to the nature of industry, and location. The limiting parameters for industrial units shall be as follows:

Table XX: Limiting Parameters for Industrial Units in different use zones and use premises

Sl.No.	Use Zone / Use Premises	Groups Permitted (Refer Annexure IX)	Conditions	
			Max. no. of Workers	Max. Power Load (kw.)
1.	Residential			
	Residential	A	5	6
	Urban Villages	A+A1	10	6
2.	Commercial			
	Lower order commercial centres upto neighborhood level	A+A1+B	5	10
	Community Centre / District Centre		10	12
	City Centre / Specialised Markets		20	12
3.	Industry			

	Plotted Development	All industries except those prohibited and of non-polluting and non-hazardous nature.	As per requirement	As per requirement
	Flatted Factories	All industries except those prohibited and of non-polluting and non-hazardous nature excluding industries producing noise/ effluent/ vibration/ odour.	25	As per requirement

Note: (1) Maximum number of workers shall be regulated by notification issued by the Department of the Industries of the State Government.

(2) The power requirement for operating pollution control machinery and non-manufacturing use shall be over and above the permissible load.

68. Household / Service Industry: (1) Household industry with maximum 5 workers and 6 kw power load may be allowed to continue in residential areas and such new industrial units of this type shall be permitted in residential areas subject to the conditions that no polluting industrial unit shall be permitted.

(2) All industrial units shall be permitted only after provisional registration with the Department of Industries of the State Government.

(3) Household Industry Units shall be allowed on any floor. Further additions / alterations in the list of household industries shall be made by the Authority with the approval of the Department of Industries of State Government.

(4) No inflammable or hazardous material shall be permitted to be stored.

(5) Separate industrial electrical connection and Municipal license shall be required for setting up household industry.

Areas prohibiting the location of industries in select locations as specified / delineated in the CDP, shall be adhered to.

69. Guidelines for Industry Use Zone.- Sub division of the industry Use Zone into use premises and subsequent approval of layout plans for industrial estates shall be governed by:

- (1) New Industrial areas to be developed shall be both flatted and plotted type.
- (2) The provision of land required for various facilities shall be as follows

Table XX: Land Use Distribution – Industrial Areas

Sl.No.	Use	Percentage
1.	Industrial Plots (Net area)	60
2.	Recreational	12
3.	Commercial	3
4.	Facilities	8
5.	Circulation	17

70. Development Control Norms

Table XXX: Industry Plots

Plot Size (sqm.)	Maximum Ground Coverage (%)	Maximum Height (m)	Setbacks (in m)			
			Front	Rear	Side 1	Side 2
100-250	60	10	3.5	1.5	1.0	-
251-500	50	12	4.5	3.0	2.5	-
501-750	40	15	6.0	3.0	3.0	3.0
751-1500	40	15	9.0	4.5	4.5	4.5
1501-2500	40	18	12.0	6.0	6.0	6.0
2501-5000	40	18	12.0	9.0	9.0	9.0
5001-10000	35	21	15.0	9.0	9.0	9.0
10001-25000	35	21	20.0	9.0	9.0	9.0
25001 and above	35	21	25.0	9.0	9.0	9.0

Table XXX: Floor Area Ratio (FAR) as per road width

Road Width	FAR for industrial buildings
Above 12 m and upto 15 m	1.00
Above 15 m and upto 18 m	1.25
Above 18 m and upto 30 m	1.25
Above 30 m	1.50

Table XX: The Industrial Estates will have approach road as per the following

Categories	Area	Minimum width of access road
A	Up to 10 hectares(Ha)	24 mts.
B	Above 10 Ha and upto 50 Ha	30 mts.
C	Above 50 Ha and upto 100 Ha	40 mts.
D	Above 100 Ha	60 mts.

Table

XX: Plot wise permissible FAR, setbacks and height of buildings

Plot Size (sqm.)	Maximum Ground Coverage (%)	Maximum Height (m.)	Setbacks (in m)			
			Front	Rear	Side 1	Side 2
1000-5000	40	15	9.0	4.5	4.5	4.5
5001 and above	40	18	12.0	6.0	6.0	6.0

Table XX: Floor Area Ratio (FAR) for Flatted / Factories as per road width

Road Width	FAR for industrial buildings
Above 12 m and upto 15 m	1.00
Above 15 m and upto 18 m	1.00
Above 18 m and upto 30 m	1.25
Above 30 m	1.25

Table XX: Plot

wise permissible FAR, setbacks and height of buildings for SEZs

Plot Size	Coverage (%)	FAR	Height (m)	Road Width (m)	Setbacks (in m.)		
<1.0Ha.	45	1.80	14	24	9	7.5	7.5
1 - 2.5	40	1.60	16	30	12	9	9
2.6 - 5	35	1.40	18	40	15	12	12
5 - 10	33.33	1.33	18	45	24	15	15
>10 Ha.	30	1.20	24	60	30	24	24

- i. All new Industrial Estates shall have approach road from a road which has minimum r/w of 30 m.
- ii. Plots measuring 100 sqm. and less shall be located on roads with minimum r/w of 9 m.
- iii. Water bodies are required to be included in the landscape plan.

- iv. Provision of rain water harvesting measures as integral part of the landscape plan shall be incorporated.
- v. Parking areas and loading / unloading areas shall have minimum 50 percent semi permeable surface.
- vi. Grease traps shall be provided near automobile washing areas
- vii. Major infrastructure like CNG, LPG, Oil, Optical fiber, electricity shall be made available through underground conduits.
- viii. Optimal utilization of industrial areas shall be made by way of developing flatted factories.
- ix. All industrial areas and units shall have efficient provisions for segregation of solid waste before disposal. No untreated effluent shall be discharged in water bodies / open areas.
- x. Provision of CETPs, Solid waste segregation / treatment plans shall be made for a cluster of industrial units.
- xi. Proper methods for managing disasters / emergency situation shall be put in place.
- xii. Industries may be grouped on the basis of common requirements of effluent treatment etc.
- xiii. Selection of Plant material shall be made keeping in view local climatic conditions.

PART IX:

DEVELOPMENT AND SUB-DIVISION OF LAND REGULATIONS

71.Application.- (1) Applications for subdivision of land for utilizing selling, leasing out or otherwise disposing it off shall be made to the Authority in Form-I (Common Application Form) as appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.

(2) The applications for subdivision shall be in addition to the requirements specified in regulation-5 accompanied by

- (a) A copy of the title deed of the land in question;
- (b) An affidavit with regard to the right, title and interest of land and such other particulars as the Authority may require;
- (c) An authenticated copy of the certificate with regard to the payment of fee to the Authority as prescribed under the Odisha Development Authorities (Common Application Form) Rules, 2016;

- (d) A no-objection certificate, from the lessor in case the land is not leasehold unless the lease deed permits undertaking sub-division as applied for;
- (e) A site plan traced out of revenue village settlement map in operation indicating therein in red colour the lands to which the application relates and surrounding plots;
- (f) An index plan of the site showing adjoining areas within a radius of 150 m. round from the proposed site marking clearly therein the boundaries of the proposed layout in red colour, existing road, structures, burial ground and high tension or low-tension power line passing through the site of the layout plan and the level of the site;
- (g) A detailed plan to a scale not less than 1:500 showing the proposed layout (sub-division) indicating size of plot width of the proposed road, open space and amenities provided;
- (h) Land use analysis indicating the survey plot number, the bye-plot number, the detailed dimensions of all the plots, the area of each plot and the use to which they are proposed to be put;
- (i) In case of land originally belonging to any religious endowments, a no-objection certificate from the endowment commissioner or Wakf board as the case may be; and

(3) Where permission for sub-division of land is granted, such permission shall be communicated to the applicant in Form-II, appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.

(4) Where permission for sub-division of land is refused such refusal shall be communicated to the applicant in Form-III appended to the Odisha Development Authorities (Common Application Form) Rules, 2016.

72. Use in relation to Development Plan.- (1) Subdivision of land shall normally be permitted for the purpose for which the concerned land is earmarked in the Master plan. Such sub division may be for residential, commercial industrial, institutional or combination of one or more of this purpose or such other purpose as may be considered conforming to the provisions in the Master plan: provided that in every subdivision plan spaces for roads, community facilities and public utilities as specified in this part or such other facilities as the Authority may determine shall be incorporated.

(2) After a subdivision plan has been approved the Authority shall not permit construction of a building on any of the plot unless the owners have laid down and made street or streets and provided amenities as approved or transferred the land covered by roads, open spaces or other public purposes to the concerned local body.

(3) Subdivision of land for residential purpose in agriculture and forest use zone shall not be permitted unless such sub-division in the opinion of the Authority forms a part of the normal expansion of existing human habitation.

(4) The sub division shall conform to the proposals of the CDP and other Master plans.

73.Size of the plot and road width.- No sub divided plot will be less than 50 sqm. and the width and depth of such plot shall be at a minimum of 1:1.5 and at a maximum of 1:3. However, the Authority reserves the right to relax in special cases such as EWS housing.

74.Area for development.- (1) Apart from the provision for amenities and open spaces, the area for residential development shall be up to maximum of 65% of the total land area.

(2) The minimum approach road width shall be as under

Table 19: Permitted Area of Development and Road width

Sl. No.	Area for Development in Ha	Road width in meters
1	Up to 1.0	6.0
2	1.0 – 4.0	9.0
3	4.0 – 10.0	12.0
4	Above 10.0	18.0

For EWS housing scheme, the minimum road width may be relaxed by the Authority.

(3) The minimum width of roads within the area of sub-division/layout shall be as per following table-

Table 20: Permitted Layout Subdivision and Minimum Road Width

Sl. No.	Length of road in (m)	Min. width of road (m)
1	Upto 250	6.0
2	Above 250 up to 500	9.0
3	Above 500 to 1,000	12.0

(4) Percentage of saleable residential land earmarked for EWS category shall be in accordance with the Housing for All Policy, 2015 and revised time to time. The cost and method of allotment of such plots may be decided by the Authority. Further, that in case of projects taken over an area as decided by the Authority, the Developer may be given the option of contributing an amount, to be decided by the Authority from time to time, to a fund named as 'Urban Poor Shelter Fund' established by the State Government. The proceeds of this fund will be utilized for construction of EWS houses and slum rehabilitation and development.

75. Roads and Open Spaces.- Roads and open spaces shall not be less than 30% of the total land area. This shall be relinquished to the Authority and if required, the Authority may handover area over for maintenance to the residents' welfare association or owner or developer. If the site is not utilized for which it is leased out within a prescribed period, it will be resumed back to the Authority.

76.Civic Amenities.- Civic amenities space shall not be less than 5% of the total area. The site shall be relinquished to Authority and leased to the residents' welfare association or the developer on payment of necessary nominal fees as prescribed by the Authority from time to time. If the site is not utilized for which it is leased out within a prescribed period, it will be resumed back to the Authority.

77.Exemptions.- (1) In case of developable area for residential development is less than 65% by providing for Master Plan roads or any other road or due to statutory reasons, prescribed by the Authority in a layout, the applicant may be exempted from complying with civic amenities reservation.

(2) For layout over 10.0 ha, commercial land uses such as Business offices, shopping complexes and Retail up to 3% may be permitted, subject to provision of separate access.

(3) For residential development up to 0.30 ha of land, the requirement of open space may not be insisted on.

PART IX: COMPOUNDING

78.Restriction on Compounding.- (1) Any deviation pertaining to unauthorized development shall not be compounded;

- (a) Where construction has been undertaken on Government land or land belonging to local body or land not owned by the person undertaking such development;
- (b) Where development has been undertaken un-authorisedly within the prohibited limits of any ancient or archaeological monuments.
- (c) Where such developments interfere with the natural drainage of the locality;
- (d) Where development has been undertaken un-authorisedly over the area earmarked /approved for parking; and,
- (e) Where road or drain whether public or private, whether constructed or natural, has been encroached.

(2) Subject to the provisions contained in sub-regulation (1), the Authority shall have the power to determine such other circumstances under which compounding may be prohibited.

(3) The Authority may, either before or after the institution of the proceedings under the provisions of the Act compound any offence:

- (a) Where development has been undertaken without permission, but within the framework of use restrictions and the provisions of these regulations applicable to the concerned plot;
- (b) The Authority may however compound deviations up to 25 percent beyond the permissible norms of these regulations in respect of front, rear and side setbacks. The maximum deviation allowed in FAR will be ten percent of the permissible FAR; and
- (c) In case of houses constructed on a plot having area not more than 40 sqm. and height not exceeding 10 m, compounding of offence relating unauthorized/ deviated construction shall be allowed with reference to setbacks and coverage. The maximum deviation in FAR shall be fifteen percent of the permissible FAR.

79. Compounding Rate.- (1) Compounding Rates for various categories shall be as follows;

Table 21: Category wise Compounding Rates

Sl. No.	Situations	Compounding fee for sqm. (in rupees)		
		Individual Residential buildings	State Govt./ Central Govt. undertakings	Other class of buildings
1.	Where development has been undertaken without permission, but within the frame work of use restrictions and the provisions of the Regulations applicable to concerned plot	250	25	400
2.	Where development has been undertaken in deviation to the approved plan, but within the framework of use, restrictions and the provisions of norms and stipulations of these regulations.	100	10	250
3.	Constructions up to 10% beyond the permissible norms of these Regulations with respect to front, side and rear setback and/or the deviation in FAR is within 5 percent of the permissible FAR.	1,000	100	2,000
4.	Constructions up to 25% beyond the permissible norms of these Regulations with respect to front, side and rear setback and/or the deviation in FAR is more than 5 percent but within ten percent of the permissible FAR.	2,000	200	5,000

80.Compounding amount.- At least 50% of the compounding amount shall be deposited in the Comprehensive Development Plan Infrastructure Development Fund (CIDF).

81. Temporary retention.- The Authority may allow retention of any unauthorized structure for temporary period on deposit of retention fee. The type of structure to be retained, the period of retention and the fees to be deposited shall be decided by the Authority from time to time.

PART X - INTERPRETATION

82. Interim Development Plans.- The Authority may prepare Interim Development Plans (IDP) for newly included development areas. Where such Interim Development Plans (IDP) has not been prepared, the general provisions of these regulations shall apply for regulating development.

83. Applicability of National Building Code.- Where no express provision has been made in respect of any matter connected with planning and building standards by the Act, the rules, the Development Plan, the Town Planning Schemes, or these regulations or by any resolution of the Authority, the provisions of the National Building Code of India shall mutatis mutandis be applicable.

84. Applicability of these Regulations.- If any Department of the State Government/Local Body/Statutory Authority has given any commitment for a project under PPP under the provision of any existing regulations prior to the revised regulations, but the building plan of such project has not yet been approved by the Authority as on date of enforcement of these regulations, such commitment shall be treated to be made under these Regulations and the building plan shall be approved accordingly.

85. Decision of the State Government to be final.- In case of any dispute in interpretation of these regulations, the decision of the State Government shall be final.

86. Relaxation by the State Government.- (1) The Authority may recommend to the State Government for relaxation/modification of any of the clauses of these regulations in the general interest of the public pertaining to projects/schemes developed by the Government agencies and the decision of the State Government in this regard shall be final.

(2) In case of EWS scheme any decision taken for relaxation of building norms at the State Level Steering Committee (SLSC) constituted under Slum Rehabilitation and Development Policy (SRDP) for Odisha or by the State Government the same shall be deemed to have been relaxed under these regulations.

87.Power of the Authority.- (1) Notwithstanding anything contain in these Regulations, the Authority after obtaining due approval of the government may compound any deviations in the constructions undertaken prior or after enforcement of these Regulations under one time settlement opportunity to provide amnesty to the citizens.

(2) For the purpose of compounding the deviation under clause (1) above the Authority may formulate a scheme specifying a time frame and publish the same in the local News Paper, Electronic Media, and Website as well as in the Odisha Gazette.

Note - The amnesty scheme shall seize its effect after one year from the date of the publication of the scheme in Odisha Gazette.

Annexure-I

(see regulation 4 (2) (e) (xix) and 47)

Standards for Sanitation Requirements

Sanitation requirements for Shops and Commercial Offices

Sl. No.	Sanitary Unit / Fittings	For Personnel
1.	Water closet	One for every 25 persons or part thereof exceeding 15 (including employees and customers). For female personnel 1 for every 15 persons or part thereof exceeding 10.
2.	Drinking Water Fountain	One for every 100 person with a minimum of one on each floor.
3.	Wash Basin	One for every 25 persons or part thereof.
4.	Urinals	Same as Sl. No. 3 of Table " Sanitation Requirements for Governmental and Public Business Occupancy and Offices"
5.	Cleaners' Sink	One per floor minimum, preferably in or adjacent to sanitary rooms.

Note:

Number of customers for the purpose of the above calculation shall be the average number of persons in the premises for a time interval of one hour during the peak period. For male-female calculation a ratio of 1: 1 may be assumed.

Sanitary Requirements for Hotels

Sl. No.	Sanitary Unit	For Residential Public staff	For non-residential Staff	
			For male	For female
1.	Water Closet (W.C.)	One per 8 Persons omitting occupants of the attached water closet minimum of 2 if both sexes are lodged	1 for 1-15 persons 2 for 16-35 persons 3 for 36-65 persons 4 for 66-100 persons	2 for 1-12 persons 4 for 13-25 persons 6 for 26-40 persons 8 for 41-57 persons 10 for 58-77 persons 12 for 78-100 persons Add 1 for every 6 persons or part thereof.
2.	Ablution Taps	One in each W.C.	One in each W.C.	One in each W.C.
3.	Urinals	Nil	Nil upto 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 40-70 persons 4 for 71-100 persons	Nil
4.	Wash Basins	One per 10 persons omitting each basin installed in the room / suite	1 for 15 persons 2 for 16-35 persons 3 for 36-65 persons	1 for 1-12 2 for 13-25 3 for 26-40 4 for 41-57

			4 for 66-100 persons	
5.	Baths	One per 10 persons, less occupants of room with bath in suite	Nil	Nil
6.	Cleaner's Sinks	One per 30 Bed rooms (one per floor minimum)	Nil	Nil
7.	Kitchen Sink	One in each Kitchen	One in each Kitchen	One in each Kitchen

Sanitary Requirements for Public Rest rooms

Sl. No	Sanitary Unit	For Male	For Female
1.	Water Closet	One per 100 persons upto 400 persons; for over 400 add at the rate of one per 250 persons or part thereof.	Two for 100 persons upto 200 persons; over 200 add at the rate of one per 100 persons or part thereof.
2.	Ablution Taps	One in each W.C.	One in each W.C.
3.	Urinals	One for 50 persons or part thereof.	Nil, upto 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons
4.	Washbasins	One per WC/Urinal	One per WC
5.	Kitchen Sink	One in each Kitchen	One in each Kitchen
6.	Baths (showers)	One per 10 persons	
7.	Cleaner's Sinks	One per 30 Bed rooms (one per floor minimum)	

Note:

- i) It may be assumed that the two-thirds of the number are males and one-third females.
- ii) One water tap with drainage arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closet and urinals.

Sanitation Requirements for Educational Occupancy

Sl. No.	Sanitary Unit	Boarding Institution		Other Educational Institution	
		For Boys	For Girls	For Boys	For Girls
1.	Water Closet (W.C.)	One for 8 boys or part thereof	One for 6 girls or part thereof	One for 40 boys or part thereof	One for 25 girls or part thereof
2.	Ablution Taps	One in each	One in each W.C.	One in each W.C.	One in each W.C.

		W.C.			
3.	Urinals	One per every 25 pupils or part thereof	--	One per every 20 pupils or part thereof	--
4.	Wash Basins	One for every 8 pupils or part thereof	One for every 6 pupils or part thereof	One for every 60 pupils or part thereof	One for every 40 pupils or part thereof
5.	Baths	One for every 8 pupils or part thereof	One for every 6 pupils or part thereof	--	--
6.	Drinking Water Fountains	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof	One for every 50 pupils or part thereof
7.	Cleaner's Sink	One per Floor minimum	One per Floor minimum	One per Floor minimum	One per Floor minimum

Sanitary Requirements for Nursery Schools

Sl. No.	Sanitary Unit	Requirement
1.	Water Closet	One for 15 boys, one for 6 girls
2.	Ablution Taps	One in each W.C.
3.	Urinals	One for 12 boys
4.	Wash Basins	One for every 15 pupils or part thereof
5.	Baths	One bath per 40 pupils
6.	Drinking Water Fountains	One for every 50 pupils or part thereof
7.	Cleaner's Sink	One per Floor minimum

Note:

- i One water tap with draining arrangements shall be provided for every 50 persons or part thereof, in the vicinity of water closets and urinal.*
- ii For teaching staff, the schedule of sanitary units to be provided shall be the same as in case of office buildings.*

Sanitation Requirements for Institutional (Medical) Occupancy- Hospital

Sl. No.	Sanitary Unit	Hospitals With indoor Patient Ward For Males & females	Hospitals With outdoor Patient Wards	
			For Males	For Females
1.	Toilet Suite (1WC+1Washbasin+ 1shower)	Private room upto 4 persons	For upto 4 patients	
2.	Water Closet (W.C.)	One for every 8 beds or part thereof	One for every 100 persons or part thereof	One for every 25 persons or part thereof
3.	Ablution taps	One in each W.C.	One in each W.C.	One in each W.C.

4.	Wash Basins	Two upto 30 bed; add one for every additional 30 beds; or part thereof	One for every 100 persons or part thereof	One for every 25 persons or part thereof.
5.	Baths with Shower	One bath with shower for every 8 beds or part thereof.	--	--
6.	Bed pan washing sink	One for each ward	--	--
7.	Cleaner' Sinks	One for each ward	One per floor minimum	One per floor minimum
8.	Kitchen sinks & dish Washers (where Kitchen is provided)	One for each ward	--	--
9.	Urinals	One for 30 beds (male wards)	One for every 50 persons or part thereof	--
10.	Drinking water fountain	One for each ward	One for 500 persons or part thereof	

Sanitary Requirements for Administrative Buildings

Sl. No.	Sanitary Unit	For Males	For Females
1.	Toilet Suite (1WC+1Washbasin+ 1shower)	For individual doctor's/officer's rooms	
2.	Water Closet (W.C.)	One for every 25 persons or part thereof	Two for every 25 persons or part thereof
3.	Ablution Taps	One in each W.C.	One in each W.C.
4.	Wash Basins	One for every 25 persons or part thereof	One for every 25 persons or part thereof
5.	Baths with Shower	One on each floor	One on each floor
6.	Cleaner's Sink	One per floor minimum	One per floor minimum
7.	Kitchen sinks & dish Washers (where Kitchen is provided)	One for each floor	One for each floor
8.	Urinals	Nil upto 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons From 101 to 200 persons add at the rate of 3%; for over 200 persons add at the rate of 2.5%.	--
9.	Drinking water fountain	One for 100 persons or part thereof	

Sanitation Requirements for Institutional (Medical) Occupancy- (staff quarters and Hostels)

Sl. No.	Sanitary Unit	Doctor's Dormitories		Nurses Hostel
		For Male Staff	For female staff	
1.	Water Closet	One for 4 persons	One for 2 persons	One for 2 persons or part thereof Two for 13-25
2.	Ablution Taps	One in each W.C.	One in each W.C.	One in each W.C.
3.	Wash Basins	One for every 8 persons or part thereof	One for every 8 persons or part thereof	One for every 8 persons or part thereof
4.	Bath (with shower)	One for every 4 persons or part thereof	One for every 4 persons or part thereof	One for every 4 persons or part thereof
5.	Cleaner's Sink	One per floor minimum	One per floor minimum	One per floor minimum
6.	Drinking water fountain	One for 100 persons or part thereof		One for 100 persons or part thereof

Sanitation Requirements for Governmental and Public Business Occupancy and Offices

Sl. No.	Sanitary Unit	For Male Personnel	For female Personnel
1.	Water Closet (W.C.)	One for 25 persons or part thereof	Two for 15 persons or part thereof
2.	Ablution taps	One in each W.C.	One in each W.C.
3.	Urinals	Nil upto 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons From 101 to 200 add @ 3%; For over 200 persons add @ 2.5%.	--
4.	Wash Basins	One for every 25 persons or part thereof	One for every 25 persons or part thereof
5.	Drinking water fountains	One for every 100 persons with a minimum of one on each floor	One for every 100 persons with a minimum of 1 on each floor
6.	Cleaner's Sinks	One per floor minimum; preferably in or adjacent to sanitary rooms.	--
7.	Executive Room / Conference Halls	Toilet Suite (1 WC, 1 washbasin, optional shower for 24 hr usages) Unit could be common for Male/Female or separate depending on the number of user of each facility	

Note: One water tap with drainage arrangements shall be provided / 50 persons or part thereof in the vicinity.

Sanitation Requirements for Assembly Occupancy Buildings (Cinema, Theaters, Auditoria. Etc.)

Sl. No.	Sanitary Unit	For Public		For Staff	
		Male	Female	Male	Female
1	Water Closet	One for 100 persons upto 400 persons. For over 400 persons, add at the rate of 1 per 250 persons or part thereof	Four for 100 persons upto 200 persons. For over 200 persons add at the rate of 1 per 50 persons or part thereof	One for 15 persons Two for 16-35 persons	Two for 1-12 persons. Four for 13-25 persons add at the rate of 1 per 6 persons or part thereof
2	Ablution Taps	One in each W.C.	One in each W.C.	One in each W.C	One in each W.C
3	Urinals	One for 50 persons or part thereof	--	Nil upto 6 persons One for 7-20 persons Two for 21-45 persons	--
4	Wash Basins	One for every 200 persons or part thereof	One for every 200 persons or part thereof	One for 1-15 persons Two for 16-35	One for 1-12 persons Two for 13-25 persons
5	Drinking Water Fountain	One per 100 persons or part thereof			
6	Cleaner's sink	One per floor			
7	Shower/Bathing	As per trade requirements			

Note:

- i) One water tap with draining arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closets and urinals.
- ii) It may be assumed that two thirds of the number is males and one third females.

Sanitation Requirements for Assembly Buildings (Art, Galleries, Libraries and Museums)

Sl. No.	Sanitary Unit	For Public		For Staff	
		Male	Female	Male	Female
1	Water Closet (W.C.)	One for 200 persons upto 400 persons.	Four for 100 persons upto 200 persons.	One for 1-15 persons.	Two for 1-12 persons.

		For over 400 persons, add at the rate of 1 per 250 persons or part thereof	For over 200 persons, add at the rate of 1 per 50 persons or part thereof	Two for 16-35 persons.	Four for 13-25 persons, add at the rate of 1 per 6 persons.
2	Ablution Taps	One in each W.C.	One in each W.C.	One in each W.C	One in each W.C
3	Urinals	One for 50 persons or part thereof	--	Nil upto 6 persons One for 7-20 persons Two for 21-45 persons	--
4	Wash Basins	One for every 200 persons or part thereof. For over 400 persons, add at the rate of 1 per 250 persons or part thereof.	One for every 200 persons or part thereof. For over 200 persons, add at the rate of 1 per 150 persons or part thereof	One for 1-15 persons Two for 16-35	One for 1-12 persons Two for 13-25 persons
5	Cleaner's Sink	One per floor, minimum			
6	Drinking Water Fountain	One per 100 persons or part thereof			
7	Shower/Bath	As per trade requirements			

Note: It may be assumed that two thirds of the numbers are males and one third females.

Sanitation Requirements for Restaurants

Sl. No.	Sanitary Unit	For Public		For Staff	
		Male	Female	Male	Female
1.	Water Closet (W.C.)	One per 50 seats upto 200 seats. For over 200 seats, add at the rate of 1 per 100 seats or part thereof	One per 25 seats upto 200 seats. For over 200 seats, add at the rate of 1 per 50 seats or part thereof	1 for 15 persons. 2 for 16-35 persons. 3 for 36-65 persons. 4 for 66-100 persons.	2 per 1-12 persons. 4 for 13-25 persons. 6 for 26-40 persons. 8 for 41-57 persons. 10 for 58-77 persons. 12 for 78-100 persons.
2.	Ablution Taps	One in each W.C.	One in each W.C.	One in each W.C.	One in each W.C.
3.	Urinals	One for 50 persons or part thereof	--	Nil upto 6 persons. 1 for 7-20 persons. 2 for 21-45 persons. 3 for 46-70	--

				persons. 4 for 71-100 persons.	
4.	Wash Basins	One for every water closet			
5.	Kitchen Sinks & Dish Washer	One per each Kitchen			
6.	Service Sink	One in the restaurant			

Note:

- i) It may be assumed that two thirds of the numbers are males and one-third females.
- ii) One water tap with draining arrangements shall be provided for every 50 persons or part thereof in the vicinity of water closets and urinal.

Sanitation Requirements for Factories

Sl. No.	Sanitary Unit	For Male Personnel	For female Personnel
1.	Water Closet	1 for 15 persons 2 for 16-35 persons 3 for 36-65 persons. 4 for 66-100 persons. For 101 to 200 persons add at rate of 3%. From over 200 persons, add at the rate of 2.5%.	2 for 1-12 persons 4 for 13-25 persons. 6 for 26-40 persons. 8 for 41-57 persons. 10 for 58-77 persons. 12 for 78-100 persons. For 101 to 200 persons, add at the rate of 3%. From over 200 persons add at the rate of 2%.
2.	Ablution Taps	One in each W.C	One in each W.C.
3.	Urinals	Nil upto 6 persons 1 for 7-20 persons 2 for 21-45 persons 3 for 46-70 persons 4 for 71-100 persons From 101 to 200 persons add at the rate of 3%; for over 200 persons add at the rate of 2.5%.	--
4.	Washing Taps with draining arrangement	One for every 25 persons or part thereof	
5.	Drinking Water Fountains	One for every 100 persons with a minimum of one on each floor	
6.	Baths Preferably Showers	As required for particular trade or occupation	
7.	Emergency shower and eye wash fountain	1 per every shop floor per 500 person	

Note:

- i) For many trades of a dirty or dangerous character, more extensive provisions are required.

- ii) One water tap with draining arrangement shall be provided for every 50 persons or part thereof in the vicinity of water closet and urinal
- iii) Creche where provided shall be fitted with water closets (One for 10 persons or part thereof), wash basins (1 for 15 persons or part thereof) and drinking water tap with drinking arrangement for every 50 persons or part thereof

Sanitary Requirements for Large Stations and Airports

Sl. No.	Place	W.C. for Males	W.C. for Females	Urinals for Males only
1.	Junction Stations, Intermediate Stations and Substations	3 for first 1000 persons, add 1 for subsequent 1000 persons or part thereof.	8 for first 1000 persons, add 1 for every additional 1000 persons or part thereof.	4 for every 1000 person, add 1 for every additional 1000 persons or part thereof.
2.	Terminal Stations and Bus Terminals	4 for first 1000 persons and 1 for every additional 1000 persons or part thereof.	10 for every 1000 person and 1 for every additional 1000 persons or part thereof.	6 for every 1000 person and 1 for every additional 1000 persons or part thereof.
3.	Domestic Airports Minimum. For 200 persons For 400 persons For 600 persons For 800 persons For 1000 persons	2* 5 9 12 16 18	4* 16 30 40 52 58	1 per 40 persons or part thereof.
4.	International Airports For 200 persons For 600 persons For 1000 persons	6 12 18	20 40 58	1 per 40 persons or part thereof.

Note:

i) Provision for wash basins, baths including shower stalls, shall be in accordance with part ix section 2- Drainage and Sanitation of National Building Code of India.

* At least one Indian style water closet shall be provided in each toilet. Assume 60 % males and 40 % females in any area.

* At least 50 % of female WCs may be Indian pan and 50% EWC.

Annexure II

(see regulation 4 (2) (e) (xx) and 47)

Segregated Sanitation Facility for visitors

Public toilets are meant for floating population, usually located near railway stations, bus stands, market places, government hospitals, religious centers etc. These toilets have a greater demand for urinals than community toilets.

The site shall be earmarked on Site Plan or a Layout plan. The Authority shall clearly state advantages and disadvantages of the location for the owner/ engaged Competent Professional for building plan design to make an informed decision on the siting.

It must be accessible to visitors and general public during the operational hours of the building. However, fiscal generation for maintenance may be planned w.r.t user charges from visitors and general public.

In order to ensure that public toilets/ wash rooms are built in various parts of the city, all the buildings constructed for the purpose of being public buildings (government offices, hospitals, educational institutions, commercial buildings, etc.) and the plot owners of the plots having an area of 3000 sq. m or more shall compulsorily construct public washroom complexes with segregated facilities for men and women separately within their plots. This is in addition to the prescribed mandatory sanitary requirements. The site shall be earmarked on site plan or a layout plan at the time of seeking building approval.

Factors to be considered:

- a. All such complexes (public toilets/wash rooms, ATM, Guard Room) should be constructed mainly within the setback area within plots, provided they do not obstruct the firefighting path.
- b. All such complexes shall be single storey only, with floor to ceiling height not exceeding 2.8 m and water tanks concealed with a parapet wall / jali not exceeding 1 m in height.
- c. All such complexes shall have a minimum of 1 wash basin, 2 urinals and 1 WC each, for men and women separately, with adequate electricity, drainage, water and sewerage facilities and connected to the prevalent infrastructure network. The entire complex shall be well ventilated with adequate provisions for water storage and lighting for late evening time use, both inside and surroundings. Provision of Solar power shall be made for utilization of lighting of the complex.
- d. In such complexes, an ATM (Automated Teller Machine) room (including guard room) with a maximum floor area of not exceeding 9 sqm. is also permitted to be constructed along with the toilet complex.
- e. Both the Public Washroom Complex as well as the ATM shall have direct access from outside the plot i.e. direct access from the road, so as to permit usage by the general public.
- f. Such complexes will be totally free of FAR and Ground Coverage shall be 'deemed approved' by the municipal/local body.
- g. Such complexes shall have provisions for signage, advertisements as well as public art (which may constitute outdoor sculptures, outdoor installations, murals, frescos, and bas-relief, folk or tribal art, artisan craft, indoor sculpture, wall paintings, and other art forms relevant to local habitat), with permission from the concerned agencies/local authorities.
- h. Such complexes shall be either constructed and maintained by the plot owner or constructed by the plot owner and maintained by a service provider or constructed

as well as maintained by a service provider and can be chargeable by the owner and/or the service provider.

- i. Such complexes should not be misused for any other purpose and if found being misused, a penalty will be imposed.
- j. In case of addition of such complexes in the existing premises, shall require fire clearances and incorporation of the same in the approved layout plan by the concerned local authorities.

Wastewater conveyance/treatment and prevention of contamination:- Since sewers may not be available in many cities, in most cases the toilet blocks will have on-site sanitation, which would require periodic cleaning of tanks / pits. Location on site should allow easy and hygienic emptying of the pits / tanks and ensure that ground water table is not contaminated by wastewater percolation.

Adequacy in provision:- The size of the block (i.e. on number of seats) must meet visitors' need. Inadequacy results in long queues and encourages open urination. Care is to be taken for *balancing problems and other special needs* of children and the elderly.

Design considerations-

- i. Adequate Ventilation. ii. Door Design / Direction of swing of the door (preferred outwards), iii. Adequate Waiting area and iv. Adequate volumes of water storage.

The facilities should include:

- a. Separate toilet blocks for men and women with separate entries.
- b. Seats for children to be provided in both sections for men and women.
- c. Waiting / Holding area.
- d. Space for Facility caretaker and maintenance staff – from where they can monitor and maintain both facilities for men and women.
- e. Urinal facilities for men
- f. Waste water disposal system
- g. Janitor / Store room for cleaning material / equipment.

Norms for differently-abled within segregated toilets:

- a. One special W.C. in a set of toilet shall be provided for the use of differently abled persons, with essential provision of wash basin near the entrance.
- b. Minimum clear opening of the door shall be 900 mm. and the door shall swing out.
- c. Suitable arrangement of vertical/horizontal handrails with 50 mm. clearance from wall shall be made in the toilet.
- d. The W.C. seat shall be 500 mm. from the floor.

Segregated sanitation facilities for Visitors in Public Buildings

S. No	Sanitary Unit	For Male Personnel	For Female Personnel
1.	Public toilet near Railway Stations (24x7) a) Water Closet(W.C) b) Urinals c) Ablution taps	a) One for 100 users b) One unit per 300-500 users c) One in each W.C.	a) One for 50 users b) -- c) One in each W.C.
2.	Public Toilet near market place/offices		

	(for working hours) a) Water Closet b) Urinals c) Ablution taps	a) One for 100 users b) One unit per 200-300 users c) One in each W.C.	a) One for 50 users b) -- c) One in each W.C.
3.	Public toilets near Public Buildings a) Water Closet b) Urinals c) Ablution taps	a) One for 100 users b) One unit per 200-300 users c) One in each W.C.	a) One for 50 users b) -- c) One in each W.C.

Per Capita Volume of Water required to be referred from Annexure VI

The recommended enclosure-sizes for different facilities at visitors' toilets

Sl. No.	Description	Optimum (mm)	Minimum (mm)*
1.	Water Closet enclosures	900x1200	750x900
2.	Urinals (divided by partition walls)	575x675	500x600

**In case of space constraint, the minimum sizes may be adopted*

The recommended areas for different facilities at visitors' toilets

Sl. No.	Sanitary Unit	Dwelling with individual conveniences	Dwelling without individual conveniences
1.	Bath Room	One provided with water tap	One for every two tenement
2.	Water Closet (W.C.)	One	One for every two tenement
3.	Sink (or Nahani) in the Floor	One	--
4.	Water Tap	One	One with drainage arrangement in each tenement One in common bath rooms and common water closet.

Note: *Where only one water closet is provided in a dwelling, the bath and water closet shall be separately accommodated.*

General Standards/Guidelines for Public Toilets in Public Area

Public Toilet	On roads and for open areas: At every 1 km, including in parks, plaza, open air theatre, swimming area, car parks, fuel stations. Toilets shall be disabled-friendly and in 50-50 ratio (M/F).
Signage	Signboards on main streets shall give directions and mention the distance to reach the nearest public convenience. Toilets shall have multi-lingual signage for the convenience of visitors. Helpline number shall be pasted on all toilets for complaints/queries.
Modes	Pay and use or free. In pay and use toilets entry is allowed on payment to the attendant or by inserting coin and user gets 15 minutes.
Maintenance/Cleaning	The toilet should have both men and women attendants. Alternatively automatic cleaning cycle covering flush, toilet bowl, seat, hand wash basin, disinfecting of floor and complete drying after each use can be adopted, which takes 40 seconds. Public toilet shall be open 24 hours.

Construction Site

At construction job sites, one toilet must be provided per 20 employees. In a work zone with between 21 and 199 employees, a toilet seat and one urinal must be provided for every 40 employees. For 200 or more workers, regulations call for a toilet seat and a urinal per 50 workers. The toilet must be located within 200 m or 5 minute walk.

Job sites that are not equipped with a sanitary sewer must, unless prohibited by local codes, provide privies, in locations where their use will not contaminate either ground or surface water. Other alternatives to a privy could be chemical toilets, re-circulating toilets, or combustion toilets.

Toilets should be cleaned regularly and maintained in good order, running water, must be provided along with soap and individual hand towels.

Temporary Camp Toilets

Toilet facilities shall be provided within 60 m of the, site, which shall not be closer than 15 m of dining area or kitchen. Make sure that toilet area is cleaned at least once per day, it is sanitary, adequately lighted and is employee safe.

Special / Contingency Toilets

A) For **Special events** like open air theater, religious/political gatherings, mela, etc. for which there are no permanent toilet facilities, contingency toilets/PSUs shall be provided. The following considerations shall determine the number of toilets to be provided for particular event: i) Duration of the event ii) Type of crowd iii) Weather conditions iv) Whether finishing times are staggered if the event has multi-functions and the following guidelines shall be applied with minimum 50 percent female toilets.

Contingency Toilet facilities for Special Events

Sl.No.	Patrons	For Males			For Females	
		Toilets	Urinals	Sinks	Toilets	Sinks
1.	<500	1	2	2	6	2
2.	<1000	2	4	4	9	4
3.	<2000	4	8	6	12	6
4.	<3000	6	15	10	18	10
5.	<5000	8	25	17	30	17

Source: i) FEMA "Special Events Contingency Planning", Toilets Page 39 ii) Jain. AK, "Spatio Economic Development Record", Clauses 5.16-5.20

iii) "Public Toilets for Women in India", Volume 18 No 5, September-October, 2011

Special Purpose Toilets: *Special toilet facilities* shall be adequately provided in public projects (transport terminals/ healthcare and other public spaces) in million plus cities for the *Third gender* with appropriate cleanliness arrangements

Annexure III

(see regulation 4 (3) (c))

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:-

- (1). Conditions for Category 'A' Buildings: Built-up Area 5000 sqm. – 20000 sqm.
- (2). Conditions for Category 'B' Buildings: Built-up Area 20000 sqm. – 50000 sqm.
- (3). Conditions for Category 'C' Buildings: Built-up Area 50000sqm. – 150000 sqm.

A local Authority, i.e. ULB/DA/any other body authorized to sanction building plans shall approve the building plans by ensuring the stipulated conditions in Table 1, 2 and 3 for the respective categories of buildings. These environmental conditions may be suitably integrated in the building permission conditions so that their effective implementation could be ensured by the local authority while sanctioning building plans in their respective urban areas.

However, in order to empower the Local Authority, the State/UT Governments will be required to amend their building by-laws to incorporate a specific set of conditions as given in the Tables 1, 2 and 3. Once these conditions are incorporated through due process adopted by States/UTs into the Building Bye-Laws and made applicable and enforceable by their local authority, States / UTs will be required to approach M/o Environment, Forest and Climate Change alongwith the Draft notification for seeking clearance that the requirements have been met and after getting the clearance from M/o EFCC, State/UT shall issue notification of Building Bye-laws alongwith stipulated conditions. Copy of the notification shall be forwarded to Ministry of Environment, Forest and Climate Change so that they may notify the particular State or part thereof for which conditions have been suitably integrated to delegate the powers to the Local Authority. Thereafter, for such notified area no separate prior Environmental clearance will be required. However, for those States/UTs or part of the States/UTs where these conditions have not been incorporated in the Building Bye-Laws, the existing arrangement of mandatory prior Environment clearance by State Environment Impact Assessment Authority shall continue to hold.

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 M/o Environment, Forest and Climate Change.

- i. For building plans with a total built-up area between 5,000 sqm. and 1,50,000 sqm., environment clearance will be required to be synchronized with the bye-laws.
- ii. 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 1 (for above 5,000 sqm. and up to 20,000 sqm.), Table 2 (for above 20,000 sqm and up to 50,000 sqm) and Table 3 (for above 50,000 sqm. and up to 1,50,000 sqm.), as the case may be, are complied with.
- iii. In cases where the buildings are of area more than 1,50,000 sqm. relevant environmental clearances would be required on a case to case basis.

**Table 1: Environmental Conditions for Building and Construction
(Category "A": 5,000 sqm. – 20,000 sqm.)**

Sl. No.	Medium	Environmental Conditions
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 conservation – Rain Water Harvesting & Ground Water Recharge	A rain water harvesting plan needs to be designed where the recharge bores (minimum one per 5000 sqm. of built-up area) shall be provided. The rain water 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 rain water harvested be linked to the tube well bore in the premise through a pipeline after filtration in the installed filters.
2(a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.
4	Energy	In common areas, LED/ solar lights must be provided.
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 bringing 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.
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.

**Table 2: Environmental Conditions for Building and Construction
(Category “B”: 20,000 sqm. – 50,000 sqm.)**

Sl. No.	Medium	Environmental Conditions
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 conservation – Rain Water Harvesting & Ground Water Recharge	A rain water harvesting plan needs to be designed where the recharge bores (minimum one per 5000 sqm. of built-up area) shall be provided. The rain water 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 rain water harvested be linked to the tube well bore in the premise through a pipeline after filtration in the installed filters.
2(a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste.
4	Energy	In common areas, LED/ solar lights must be provided.
4(a)		At least 1% of connected applied load generated from renewable energy source such as photovoltaic cells or wind mills or hybrid

Sl. No.	Medium	Environmental Conditions
		should be provided.
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.
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.
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 bringing 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.
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.

**Table 3: Environmental Conditions for Building and Construction
(Category "C": 50,000 sqm. – 150,000 sqm.)**

Sl. No.	Medium	Environmental Conditions
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 conservation - Rain Water Harvesting & Ground Water Recharge	A rain water harvesting plan needs to be designed where the recharge bores (minimum one per 5000 sqm. of built-up area) shall be provided. The rain water 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 rain water harvested is to be linked to the tube well bore in the premise through a pipeline after filtration in the installed filters.
2(a)		The unpaved area shall be more than or equal to 20% of the recreational open spaces.
2(b)		The ground water shall not be withdrawn without approval from the competent authority
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.

Sl. No.	Medium	Environmental Conditions
3	Solid Waste Management	Separate wet and dry bins must be provided at the ground level for facilitating segregation of waste
3 (a)		All non-biodegradable waste shall be handed over to authorized recyclers for which a written tie-up must be done with the authorized recyclers.
3 (b)		Organic waste composter/ vermiculture pit with a minimum capacity of 0.3 Kg/tenement/day must be installed wherein the STP sludge may be used 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.
4(a)		At least 1% of connected applied load generated from renewable energy source such as photovoltaic cells or wind mills or hybrid should be provided.
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.
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.
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.
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.
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 bringing 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.
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.

Sl. No.	Medium	Environmental Conditions
7	Sewage Treatment Plant	Sewage treatment plant with capacity of treating 100% waste water shall be installed. Treated water must be recycled for gardening and flushing.
8	Environment Management Plan	The environment infrastructure like Sewage Treatment Plant, Landscaping, Rain Water 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.

Annexure IV

(see regulation 4 (3) (d), 47 and 61)

Standards for Fire Protection & Fire Safety Requirements

Scope:

This part covers the requirements of the fire protection for the multi-storeyed buildings (high rise buildings) and the buildings, which are of 15 m and above in height and low occupancies of categories such as Assembly, Institutional., Educational (more than two storeyed and built-up area exceeds 500 sqm.), Business (where plot area exceeds 500 sq. m.), Mercantile (where aggregate covered area exceeds 750 sq. m.), Hotel, Hospital, Nursing Homes, Underground Complexes, Industrial Storage, Meeting/ Banquet Halls, Hazardous Occupancies.

Procedure for Clearance from Fire Service

- A. The concerned Authority shall refer the building plans to the Chief Fire Officer for obtaining clearance in respect of building identified under Section 10 of the Odisha Fire Service Act, 1993 as revised time to time.
- B. The Authority shall furnish three sets of complete building plans along with prescribed fee to the Chief Fire Officer, after ensuring that the proposals are in line with Master Plan/Zonal Plan of the area.
- C. The plans shall be clearly marked and indicate the complete fire protection arrangements and the means of access/escape for the proposed building with suitable legend along with standard signs and symbols on the drawings. The same shall be duly signed/certified by a licensed Fire Consultant/Architect. The information regarding fire safety measures shall be furnished.
- D. The Chief Fire Officer shall examine these plans to ensure that they are in accordance with the provisions of fire safety and means of escape as per these bye-laws and shall forward two sets of plans duly signed for implementation to the building sanctioning Authority.
- E. After completion of firefighting installations as approved and duly tested and certified by the licensed Fire Consultant / Architect, the Owner/ Builder of the building shall approach the Chief Fire Officer through the concerned Authority for obtaining clearance from fire safety and means of escape point of view. The concerned Authority shall ensure that clearance from Chief Fire Officer has been obtained for the building identified before granting the completion certificate.
- F. On receipt of the above request, the Chief Fire Officer shall issue the No Objection Certificate from fire safety and means of escape point of view after satisfying himself that the entire fire protection measures are implemented and functional as per approved plans.
- G. Any deficiencies observed during the course of inspection shall be communicated to the Authority for rectification and a copy of the same shall be forwarded to the concerned building owner/ builder.

Renewal of Fire Clearance

On the basis of undertaking given by the Fire Consultant / Architect, the Chief Fire Officer shall renew the fire clearance in respect of the following buildings on annual basis:

- A. Public entertainment and assembly
- B. Hospitals
- C. Hotels
- D. Underground shopping complex
- E. Such other occupancies as decided by the Authority.

Fee

For augmentation of fire service facilities for effecting rescue/fire-fighting operation in high rise building, fee payable to Chief Fire Officer by the applicant(s) along with sets of plans for obtaining the No Objection Certificate shall be as prescribed by the <XX> Development Authority.

Fire Consultant

The Architect of the project will be responsible for making provisions for fire protection and firefighting measure as provided and for that he may consult an expert in this field, as in case of other professionals for structural, sanitary and others.

Terminology

All the technical terms shall have the meaning as defined in National Building Code of India, Part-IV, Fire Protection as amended from time to time but for the terms which are defined otherwise in these Regulations.

General

The Chief Fire Officer may insist on suitable provisions in the building from fire safety and means of escape point of view depending on the occupancy, height or on account of new developments creating special fire hazard, in addition to the provision of these building Regulations and part IV (Fire Protection) of National Building Code of India.

Means of Access

The following provisions of means of access shall be applicable.

- A. Provisions of Exterior Open Spaces around the Building
- i. The setbacks of the respective building shall be as per Master Plan, detailed Layout Plan, and general Development Plan.
 - ii. For multi-Storeyed buildings identified the provision of exterior open spaces around the buildings shall be as given in Table.

PROVISION OF EXTERIOR OPEN SPACES AROUND THE BUILDINGS

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

Note:

- i. On sides where no habitable rooms face, a minimum space of 9.0 m shall be left for heights above 27.0 m.
- ii. In case of multi storeyed buildings the exterior open space around a building shall be of hard surface capable of taking load of fire engine weighting upto 45 tonnes.

Exit Requirement

A. Type of Exits:

- i. Exits shall be either horizontal or vertical type. An exit may be doorway, corridor and passage to an internal staircase or external staircase, ramp or a verandah and/ or terraces that have access to the street or to roof of a building. An exit may also include horizontal exit leading to an adjoining building at the same level.
- ii. Lifts escalators and revolving doors shall not be considered as exits.

B. Number of Size of Exits:

The requisite number and size of various exits shall be provided, based on the occupants in each room and floor based on the occupant load, capacity of exits, travel distance and height of buildings as per one above.

C. Arrangements of Exits:

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

D. Capacity of Exit:

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

OCCUPANTS PER UNIT EXIT WIDTH

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

E. Staircase Requirements:

There shall be minimum of two staircases and one of them shall be enclosed stairway and the other shall be on the external walls of building and shall open directly to the exterior, interior open space or to any open place of safety. Single staircase may be accepted for educational, business or apartment buildings where floor area does not exceed 300 sq m. and height of the building does not exceed 24 m. and other requirements of occupant load, travel distance and width of staircase shall meet the requirement. The single staircase in such case shall be on the outer wall of the building.

F. Minimum Width Provision for Stairways:

The following minimum width provisions shall be made for each stairway

i.	Residential low rise building	0.9 m
ii.	Other residential building e.g. flats,	1.25 m
iii.	Hostels, Housing Projects, guest houses, etc.	1.25 m
iv.	Assembly buildings like Auditorium, theatres and cinemas	2.0 m
v.	All other buildings including hotels	1.5 m
vi.	Institutional building like hospitals	2.0 m
vii.	Educational building like School, Colleges.	1.5 m

G. Minimum Width Provision for Passageway/Corridors:

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

i.	Residential buildings, dwelling unit type	1.0 m
ii.	Residential buildings, e.g., hostels, etc.	1.25 m
iii.	Assembly buildings like auditorium theatres and cinemas	2.0 m
iv.	All other buildings including hotels	1.5 m
v.	Hospital, Nursing Homes, etc.	2.4 m

H. Doorways:

- i. Every doorway shall open into an enclosed stairway, a horizontal exit, on a corridor or passageway providing continuous and protected means of egress.
- ii. No exit doorways shall be less than 1 m in width and 1.5 m in case of hospital and ward block. Doorways shall not be less than 2.10 m in height.
- iii. 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 1 m. Overhead or sliding door shall not be installed.
- iv. Exit door shall not open immediately upon a flight or stairs. A landing equal to at least, the width of the door shall be provided in the stairway at each doorway. Level of landings shall be the same as that of the floor, which it serves.
- v. Exit doorways shall be open able from the side, which they serve without the use of a key.
- vi. Revolving doors shall not be allowed.

I. Stairways:

- i. Interior stairs shall be constructed of non-combustible material throughout.
- ii. Interior stairs shall be constructed as a self-contained unit with at least one side adjacent to an external wall and shall be completely enclosed.
- iii. A staircase shall not be arranged round a lift shaft for buildings 15.0 m and above height. The staircase location shall be to the satisfaction of Chief Fire Officer.
- iv. Hollow combustible construction shall not be permitted.
- v. The minimum width of treads without nosing shall be 25 cm for an internal staircase for residential high-rise buildings. In the case of other buildings, the minimum tread shall be 30 cm. The treads shall be constructed and maintained in a manner to prevent slipping. Winders shall be allowed in residential buildings provided they are not at the head of a downward flight.

- vi. The maximum height of riser shall be 19 cm in the case of residential high rise buildings and 15 cm in the case of other buildings .These shall be limited to 13 per flight.
- vii. Handrails shall be provided with a minimum height of 1 m from the center of the tread.
- viii. The minimum headroom in a passage under the landing of a staircase and under the staircase shall be 2.10 m.
- ix. For building more than 24 m in height, access to main staircase shall be through a lobby created by double door of one hour fire rating. One of the doors will be fixed in the wall of the staircase and other after the lobby.
- x. No living space, store or other fire risk shall open directly into the staircase or staircases.
- xi. 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.
- xii. The main staircase and fire escape staircase shall be continuous from ground floor to the terrace level.
- xiii. No electrical shafts/AC ducts or gas pipe etc. shall pass through the staircase. Lift shall not open in staircase landing.
- xiv. No combustible material shall be used for decoration/wall panelling in the staircase.
- xv. Beams/columns and other building features shall not reduce the head room/width of the staircase.
- xvi. The exit sign with arrow indicating the way to the escape route shall be provided at a suitable height from the floor level on the wall and shall be illuminated by electric light connected to corridor circuits. All exit way marking sign should be flush with the wall and so designed that no mechanical damage shall occur to them due to moving of furniture or other heavy equipments. Further all landings of floor shall have floor-indicating boards indicating the number of floor.
- xvii. The floor indication board shall be placed on the wall immediately facing the flight of stairs and nearest to the landing. It shall be of size not less than 0.2 m x 0.5 m.
- xviii. Individual floors shall be prominently indicated on the wall facing the staircase.
- xix. In case of single staircase it shall terminate at the ground floor level and the access to the basement shall be by a separate staircase. However, the second staircase may lead to basement levels provided the same is separated at ground level either by ventilated lobby with discharge points at two different ends through enclosures.

J. External Stairs:

- i. Fire escape shall not be taken into account while calculating the number of staircases for a building.
- ii. All fire escapes shall be directly connected to the ground.
- iii. Entrance to the fire escape shall be separate and remote from internal staircase.
- iv. The route to fire escape shall be free of obstructions at all times except the doorway leading to the fire escape which shall have the required fire resistance.
- v. Fire escape shall be constructed of non-combustible materials.
- vi. Fire escape stairs shall have straight flight not less than 125 cm wide with 25 cm treads and risers not more than 19 cm.
- vii. Handrails shall be at a height not less than 1 m.
- viii. Fire escape staircase in the mercantile, business, assembly, hotel, buildings above 24 m height shall be a fire tower and in such a case width of the same shall not be less than the width of the main staircase. No combustible material shall be allowed in the fire tower.

K. Spiral Stairs

- i. The use of spiral staircase shall be limited to low occupant load and to a building height 9 m.
- ii. A spiral stair shall not be less than 1.5 m in diameter and shall be designed to give the adequate headroom.

L. Staircase Enclosures

- i. The external enclosing walls of the staircase shall be of the brick or the R.C.C. construction having fire resistance of not less than two hours. All enclosed staircases shall have access through self-closing door of one-hour fire resistance. These shall be single swing doors opening in the direction of the escape. The door shall be fitted with the check action door closers.
- ii. The staircase enclosures on the external wall of the building shall be ventilated to the atmosphere at each landing. Permanent vent at the top equal to the 5% of the cross sectional area of the enclosure and openable sashes at each floor level with area equal to 1 to 15% of the cross sectional area of the enclosure on external shall be provided. The roof of the shaft shall be at least 1 m above the surrounding roof. There shall be no glazing or the glass bricks in any internal closing wall of staircase.
- iii. If the staircase is in the core of the building and cannot be ventilated at each landing, a positive of 5-mm w.g. by an electrically operated blower/blowers shall be maintained.
- iv. The mechanism for pressurizing the staircase shaft shall be so installed that the same shall operate automatically on fire alarm system/sprinkler system and be provided with manual operation facilities.

M. Ramps

- i. Ramps of slope of not more than 1 in 10 may be substituted for and shall comply with all the applicable requirements of all required stairways as to enclosure capacity and limiting dimensions. Larger slopes shall be provided for special uses but in no case greater than 1 in 8. For all slopes exceeding 1 in 10 and where the use is such as to involve danger of slipping, the ramp shall be surfaced with approved non-slipping material.
- ii. The minimum width of the ramps in the Hospitals shall be 2.4 m and in the basement using car parking shall be 6.0 m.
- iii. Handrails shall be provided on both sides of the ramp.
- iv. Ramp shall lead directly to outside open space at ground level or courtyards of safe place.
- v. For building above 24.0 m in height, access to ramps from any floor of the building shall be through smoke fire check door.
- vi. In case of nursing homes, hospitals etc. area exceeding 300 sqm. at each floor one of the exit facility shall be a ramp of not less than 2.4 m in width.

N. Provision of Lifts

- a. Provision of the lifts shall be made for all multi-storeyed building having a height of 15.0 m and above.
- b. All the floors shall be accessible 24 hrs. by the lift. The lift provided in the buildings shall not be considered as a means of escape in case of emergency.
- c. Grounding switch at ground floor level to enable the fire service to ground the lift car in case of emergency shall also be provided.
- d. The lift machine room shall be separate and no other machinery shall be installed in it.

O. LIFT ENCLOSURE/ LIFT

General requirements shall be as follows

- a. Walls of lift enclosures shall have a fire rating of two hours. Lift shafts shall have a vent at the top of area not less than 0.2 sqm.
- b. Lift motor room shall be located preferably on top of the shaft and separated from the shaft by the floor of the room.
- c. Landing door in lift enclosures shall have a fire resistance of not less than one hour.
- d. The number of lifts in one lift bank shall not exceed four. A wall of two hours fire rating shall separate individual shafts in a bank.
- e. Lift car door shall have a fire resistance rating of 1 hour.
- f. For buildings 15.0 m. and above in height, collapsible gates shall not be permitted for lifts and solid doors with fire resistance of at least one hour shall be provided.
- g. 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 possible pressure of 50 pa shall be maintained in the lift shaft. The mechanism for the pressurization shall act automatically with the fire alarm/sprinkler system and it shall be possible to operate this mechanically also.
- h. Exit from the lift lobby, if located in the core of the building, shall be through a self-closing fire smoke check door of one hour fire resistance.
- i. Lift shall not normally communicate with the basement. If however, lifts are in communication, the lift lobby of the basement shall be pressurized as in (g) with self-closing door as in (h).
- j. Grounding switch (es), at ground floor level shall be provided to enable the fire service to ground the lifts.
- k. Telephone/talk back communication facilities may be provided in lift cars for communication system and lifts shall be connected to the fire control room of the building.
- l. Suitable arrangements such as providing slope in the floor of the lift lobby shall be made to prevent water used during firefighting, etc at any landing from entering the lift shafts.
- m. 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 location of the stairways. Floor marking shall be done at each floor on the wall in front of the lift-landing door.
- n. Alternate power supply shall be provided in all the lifts.

P. FIRE LIFT

Following requirements shall apply for a fire lift in addition to above requirements:

- a. To enable fire service personnel to reach the upper floors with the minimum delay, one or more of the lifts shall be so designed so as to be available for the exclusive use of the fireman in an emergency and be directly accessible to every dwelling/ lettable floor space on each floor.
- b. The lift shall have a floor area of not less than 1.4 sqm. It shall have a loading capacity of not less than 545 kg (8 persons lift) with automatic closing doors.
- c. The electric supply shall be on a separate service from electric supply mains in a building and the cables run in a route safe from fire, i.e. within a lift shaft. Lights and fans in the elevator having wooden panelling or sheet steel construction shall be operated on 24-volt supply.
- d. In case of failure of normal electric supply, it shall automatically switch-over to the alternate supply. For apartment houses, this changeover of supply could be done through manually operated changeover switch.
- e. Alternatively, the lift should be so wired that in case of power failure, it comes down at the ground level and comes to stand still with door open.
- f. The operation of a fire lift shall be by a single toggle of two button switch situated in a glass-fronted box adjacent to the lift at the entrance level. When the switch is on landing; call points will become inoperative and the lift

- will be on car control only or on a priority control device. When the switch is off, the lift will return to normal working. This lift can be used by the occupants in normal times.
- g. The words 'FIRE LIFT' shall be conspicuously displayed in fluorescent paint on the lift landing doors at each floor level.
 - h. The speed of the fire lift shall be such that it can reach to the top floor from ground level within one minute.

Q. Basement Requirements

- i. The access to the basement shall be either from the main or alternate staircase providing access and exit from higher floors. Where the staircase is continuous the same shall be enclosed type serving as a fire separation from the basement floor and higher floors. Open ramps shall be permitted if they are constructed within the building line subject to the provision of the (iv).
- ii. In case of basement for office, sufficient number of exit ways and access ways shall be provided with a travel distance not more than 15.0 m. The travel distance in case of dead-end shall be 7.5 m.
- iii. The basement shall be partitioned and in no case compartment shall be more than 500 sqm. and less than 50 sqm. area except parking. Each compartment shall have ventilation standards as laid down in Bye-Laws separately and independently. The partition shall be made in consultation with Chief Fire Officer.
- iv. The first basement (immediately below ground level) can be used for services/parking/other permissible services. Lower basement, if provided, shall exclusively be used for car parking only.
- v. 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 starboard 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 starboard or pavement lights. Ducts to convey fresh air to the basement floor level are to be laid. Starboard and pavement lights should be in positions easily accessible to the firemen and clearly marked "SMOKE OUTLET" or AIR INLET" with an indication of area served at or near the opening.
- vi. The staircase of basement shall be of enclosed type having fire resistance of not less than two hours and shall be situated at the periphery of the basement to be entered at ground level only from the open air and in such positions that smoke from any fire in the basement shall not obstruct any exit serving the ground and upper stories of the building and shall communicate with basement through a lobby provided with fire resisting self-closing door of one hour rating. In case of basement being used as car parking only, the travel distance shall be 45 m.
- vii. In multi-storeyed basements, intake duct may serve all basements levels, but each basement and basement compartment shall have separate smoke outlet duct or ducts. 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 smoke, heat sensitive detectors/sprinklers, if installed, and shall have a considerably superior performance compared to the standard units. It shall also have an arrangement to start manually.
- viii. Mechanical extractors shall have an internal locking arrangement so that extractors shall continue to operate and supply fans shall stop automatically with the actuation of fire detectors. Mechanical extractors shall be designed to permit 30 air changes per hour in case of fire or distress call. However, for normal operation, only 30 air changes or any other convenient factor can be maintained.

- ix. Mechanical extractors shall have an alternate source of power supply.
- x. Ventilating ducts shall be integrated with the structure and made out of brick masonry or RCC as far as possible and when this duct crosses the transformer area of electrical switchboard, fire dampers shall be provided.
- xi. Kitchens working on gas fuel shall not be permitted in basement/sub-basement.
- xii. If cutouts are provided from basement to the upper floors or to the atmosphere, all side cutout openings in the basements shall be protected by sprinkler heads at closed spacing so as to form a water curtain in the event of a fire.
- xiii. Dewatering pump shall be provided in all basements.

R. Provision of Helipad

All high-rise buildings 50 m and above shall have provision for a Helipad on the terrace. The same shall be approved by the Authority.

S. Service Ducts/Refuge Chute

- i Service duct shall be enclosed by walls and door, if any, of 2 hours fire rating. If ducts are larger than 10 sqm. the floor should seal them, but suitable opening for the pipes to pass through shall be provided with the gaps sealed.
- ii A vent opening at the top of the service shaft shall be provided between one-fourth and one-half of the area of the shaft. Refuge chutes shall have an outlet at least of wall of non-combustible material with fire resistance of not less than two hours. They shall not be located within the staircase enclosure or service shafts or air conditioning shafts. Inspection panel and door shall be tight fitting with 1 hour fire resistance; the chutes should be as far away as possible from exits.
- iii Refuge chutes shall not be provided in staircase walls and A/C shafts etc.

Electrical Services

Electrical Services shall conform to the following:

- A.** The electric distribution cables/wiring shall be laid in a separate duct shall be sealed at every floor with non-combustible material 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.
- B.** Water mains, telephone wires, inter-com lines, gas pipes or any other service lines shall not be laid in ducts for electric cables.
- C.** Separate conduits for water pumps, lifts, staircases and corridor lighting and blowers for pressuring system shall be directly from the main switch panel and these circuits shall be laid in separate conduit pipes, so that fire in one circuit will not affect the others. Master switches controlling essential service circuits shall be clearly labelled.
- D.** The inspection panel doors and any other opening in the shaft shall be provided with airtight fire doors having fire resistance of not less than 1 hour.
- E.** Medium and low voltage wiring running in shafts, and within false ceiling shall run in metal conduits. Any 240 voltage wiring for lighting or other services, above false ceiling should have 660 V grade insulation. The false ceiling including all fixtures used for its suspension shall be of non-combustible material.
- F.** An independent and well-ventilated service room shall be provided on the ground floor with direct access from outside or from the corridor for the purpose of termination of electrical supply from the licenses service and alternative supply cables. The doors provided for the service room shall have fire resistance of not less than 1 hour.
- G.** MCB and ELCB shall be provided for electrical circuit.

Staircase and Corridor Lights

The staircase and corridor lighting shall be on separate circuits and shall be independently connected so that 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 individual control of the light points, if any. It should be of miniature circuit breaker type of switch so as to avoid replacement of fuse in case of emergency.

- A.** Staircase and corridor lighting shall also be connected to alternate source of power supply.
- B.** Suitable arrangement shall be made by installing double throw switches to ensure that the lighting installed in the staircase and the corridor does not get connected to two sources of supply simultaneously. Double throw switch shall be installed in the service room for terminating the stand by supply.
- C.** Emergency lights shall be provided in the staircase and corridor.

Air-Conditioning

- i. Air- conditioning system should be installed and maintained so as to minimise the danger of spread of fire, smoke or fumes thereby from one floor of fire area to another or from outside into any occupied building or structure.
- iii. Air -Conditioning systems circulating air to more than one floor area should be provided with dampers designed to close automatically in case of fire and thereby prevent spread of fire or smoke. Such a system should also be provided with automatic controls to stop fans in case of fire, unless arranged to remove smoke from a fire, in which case these should be designed to remain in operation.
- iv. Air- conditioning system serving large places of assembly (over one thousand persons), large departmental stores, or hostels with over 100 rooms in a single block should be provided with effective means for preventing circulation of smoke through the system in the case of fire in air filters or from other sources drawn into the system even though there is insufficient heat to actuate heat smoke sensitive devices controlling fans or dampers. Such means shall consist of approved effective smoke sensitive controls.

Air- Conditioning Should Conform to the following:

- i. Escape routes like staircase, common corridors, lift lobbies; etc should not be used as return air passage.
- ii. The ducting should be constructed of metal in accordance with BIS 655:1963
- iii. Wherever the ducts pass through fire walls or floor, the opening around the ducts should be sealed with fire resisting material of same rating as of walls / floors.
- iv. Metallic ducts should be used even for the return air instead of space above the false ceiling.
- v. The material used for insulating the duct system (inside or outside) should be of flame resistant (IS 4355: 1977) and non- conductor of heat.
- vi. Area more than 750 sqm. on individual floor should be segregated by a firewall and automatic fire dampers for isolation should be provided.
- vii. In case of more than one floor, arrangement by way of automatic fire dampers for isolating the ducting at every floor from the floor should be made. Where plenums used for return air passage, ceiling and its features and air filters of the air handling units, these should be flame resistant. Inspection panels should be provided in the main trenching. No combustible material should be fixed nearer than 15 cm to any duct unless such ducting is properly enclosed and protected with flame resistant material
- viii. In case of buildings more than 24 m in height, in non-ventilated lobbies, corridors, smoke extraction shaft should be provided.

Fire Dampers

- i. These shall be located in air ducts and return air ducts/passages at the following points:
 - b. At the fire separation wall.
 - c. Where ducts/passages enter the central vertical shaft.
 - d. Where the ducts pass through floors.
 - e. At the inlet of supply air duct and the return air duct of each compartment on every floor.
- ii. The dampers shall operate automatically and shall simultaneously switch off the air- handling fans. Manual operation facilities shall also be provided.
- iii. For blowers, where extraction system and dust accumulators are used, dampers shall be provided.
- iv. Fire/smoke dampers (for smoke extraction shafts) for buildings more than 24 m in height. For apartment houses in non-ventilated lobbies /corridor operated by detection system and manual control sprinkler system. For other buildings on operation of smoke/ heat detection system and manual control/sprinkler system.
- v. Automatic fire dampers shall be so arranged so as to close by gravity in the direction of air movement and to remain tightly closed on operation of a fusible link.

Boiler Room

Provisions of boiler and boiler rooms shall conform to Indian Boiler Act. 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 may be allowed in the basement 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 pits shall be provided at the low level.
- C.** Entry to this room shall be provided with a composite door of 2 hours fire resistance.
- D.** The boiler room shall be provided with fresh air inlets and smoke exhaust directly to the atmosphere.
- E.** The furnace oil tank for the boiler if located in the adjoining room shall be separated by fire resisting wall of 4 hours rating. The entrance to this room shall be provided with double composite doors. A curb of suitable height shall be provided at the entrance in order to prevent the flow of oil into boiler room in case of tank rupture.
- F.** Foam inlets shall be provided on the external walls of the building near the ground level to enable the fire services to use foam in case of fire.

Alternate Source of Electric Supply

A stand by electric generator shall be installed to supply power to staircase and corridor lighting circuits, lifts detection system, fire pumps, pressurization fans and bowlers, P.A system, exit sign, smoke extraction system, in case of failure of normal electric supply. The generator shall be capable of taking starting current of all the machines and circuits stated above simultaneously. If the standby pump is driven by diesel engine, the generator supply need not be connected to the standby pump. The generator shall be automatic in operation.

Safety Measures in Electric Sub-Station

- i. Clear independent approach to the sub-station from outside the building shall be made available round the clock.
- ii. The approaches/corridors to the sub-station area shall be kept clear for movement of men and material at all times.
- iii. The sub-station space is required to be provided with proper internal lighting arrangements.
- iv. In addition to natural ventilation proper ventilation to the sub-station area is to be provided by grill shutters and exhaust fans at suitable places so as to

discharge all smoke from the sub-station without delay in case of fire so that sub-station operations can be carried out expeditiously.

- v. Cable trenches of 0.6 m X 0.6 m dummy floor of 0.6 m depth shall be provided to facilitate laying of cable inside the building for connecting to the equipment.
- vi. Steel shutters of 2.5 m x 2.5 m with suitable grills shall be provided for transformers and sub-station room.
- vii. The floor of the sub-station should be capable of carrying 10 tons of transformer weight on wheels.
- viii. Built up substation space is to be provided free of cost.
- ix. Sub-station space should be clear from any water, sewer, air conditioning, and gas pipe or telephone services. No other service should pass through the substation space or the cable trenches.
- x. Proper ramp with suitable slope may be provided for loading and unloading of the equipment and proper approach shall be provided.
- xi. RCC pipes at suitable places as required shall be provided for the cable entries to the substation space and making suitable arrangement for non-ingress of water through these pipes.
- xii. The substation space is to be provided in the approved/sanctioned covered area of the building.
- xiii. Any other alteration /modification required while erection of the equipment will be made by the Owner / builder at site as per requirement.
- xiv. Adequate arrangement for fixing chain pulley block above the fixing be available for load of 15 tons.
- xv. Provision shall be kept for the sumps so as to accommodate complete volume of transformer oil, which can spill over in the event of explosion of the transformer in the basement of the building. Sufficient arrangement should exist to avoid fire in the sub-station building from spread of the oil from the sumps.
- xvi. Arrangement shall be made for the provision of fire retardant cables so as to avoid chances of spread of fire in the sub-station building.
- xvii. Sufficient pumping arrangement should exist for pumping the water out, in case of fire so as to ensure minimum loss to the switchgear and transformer.
- xviii. No combustible material shall be stacked inside the substation premises or in the vicinity to avoid chances of fire.
- xix. It should be made mandatory that the promoters of the multi-storeyed building should get substation premises inspected once a year to get their license revalidated for the provision of electric supply from Electricity Board so that suitable action can be taken against the Owner / Builder in case of non- implementation.
- xx. The sub-station must not be located below the 1st basement and above the ground floor.
- xxi. The substation space should be totally segregated from the other areas of the basement by fire resisting wall. The ramp should have a slope of 1: 10 with entry from ground level. The entire Sub-station space including the entrance at ground floor be handed over to the licensee of electricity free of cost and rent.
- xxii. The sub-station area shall have a clear height of 3.6 m below beams. Further the Sub-station area will have level above the rest of basement level by 0.60 m.
- xxiii. It is to be ensured that the Sub-station area is free of seepage / leakage of water.
- xxiv. The licensee of electricity will have the power to disconnect the supply of the building in case of violation of any of the above points.
- xxv. Electric substation enclosure must be completely segregated with 4- hours' fire rating wall from remaining part of basement.
- xxvi. The Sub-station should be located on periphery /sub-basement and (not above ground floor).

- xxvii. Additional exit shall be provided if travel distance from farthest corner to ramp is more than 15 m.
- xxviii. Perfect independent vent system @ 30 air changes per hour linked with detection as well as automatic high velocity water spray system shall be provided.
- xxix. All the transformers shall be protected with high velocity water spray system / Nitrogen Injection System Carbon Dioxide total flooding system in case of oil filled transformer. In addition to this, manual control of auto high velocity spray system for individual transformers shall be located outside the building at ground floor.
- xxx. Suitable arrangement for pump house, water storage tanks with main electrical pump and a diesel-operated pump shall be made if no such arrangement is provided in the building. In case the water pumping facilities are existing in the building for sprinkler system, the same should however be utilized for high velocity water spray system. Alternatively automatic CO₂ total flooding system shall be provided with manual controls outside the electric sub-station.
- xxxi. System shall have facility to give an audio alarm in the basement as well as at the control room.
- xxxii. Fire control room shall be manned round the clock.
- xxxiii. The electric substation shall have electric supply from alternate source for operation of vent System lighting arrangements.
- xxxiv. Cable trenches shall be filled with sand
- xxxv. Party walls shall be provided between two transformers as per the rules.
- xxxvi. Electric control panels shall be segregated.
- xxxvii. Exits from basement electric substation shall have self-closing fire smoke check doors of 2-hours fire rating near entry to ramp.
- xxxviii. All openings to lower basement or to ground floor shall be sealed properly.
- xxxix. Yearly inspection shall be carried out by electrical load sanctioning Authority.
 - xl. Ramp to be designed in a manner that in case of fire no smoke should enter the main building.
 - xli. Electric substation transformer shall have clearance on all sides as per BBL/relevant electric rules.
 - xlii. Other facility shall be as per Building Bye-Laws and relevant electric rules.
 - xlili. Rising electrical mains shall consist of metal bus bars suitably protected from safety point of view.
 - xliv. Dry transformer shall be preferred.

Fire Protection Requirements

Buildings shall be planned, designed and constructed to ensure fire safety and this shall be done in accordance with Part-IV Fire and Life Safety of National Building Code of India unless otherwise specified. In the case of identified buildings the building schemes shall also be cleared by the Chief Fire Officer.

First Aid /Fixed Fire Fighting /Fire Detection Systems and Other Facilities

Provision of fire safety arrangement for different occupancy as indicated below shall be as per NBO code.

- i. Access
- ii. Wet Riser
- iii. Down Comer
- iv. Hose Reel
- v. Automatic Sprinkler System
- vi. Yard Hydrant
- vii. U.G. Tank with Draw off Connection
- viii. Terrace Tanks
- ix. Fire Pump
- x. Terrace Pump
- xi. First Aid Fire Fighting Appliances

- xii. Auto Detection System
- xiii. Manual operated Electrical Fire Alarm System
- xiv. P.A System with talk back facility
- xv. Emergency Light
- xvi. Auto D.G. Set
- xvii. Illuminated Exit Sign
- xviii. Means of Escape
- xix. Compartmentation
- xx. MCB /ELCB
- xxi. Fire Man Switch in Lift
- xxii. Hose Boxes with Delivery Hoses and Branch
- xxiii. Pipes Refuge Area

NOTE:

1. *Where more than one riser is required because of large floor area, the quantity of water and pump capacity recommended should be finalized in consultation with Chief Fire Officer.*
2. *The above quantities of water shall be exclusively for firefighting and shall not be utilized for domestic or other use.*
3. *3 A facility to boost up water pressure in the riser directly from the mobile pump shall be provided in the wet riser, down comer system with suitable fire service inlets (collecting head) with 2 to 4 numbers of 63 mm inlets for 100-200 mm dia main, with check valve and a gate valve.*
4. *Internal diameter of rubber hose for reel shall be minimum 20 mm. A shut off branch with nozzle of 5 mm. size shall be provided.*
5. *Fire pumps shall have positive suction. The pump house shall be adequately ventilated by using normal/mechanical means. A clear space of 1.0 m. shall be kept in between the pumps and enclosure for easy movement /maintenance. Proper testing facilities and control panel etc. shall be provided.*
6. *Unless otherwise specified in Regulations, the firefighting equipment /installation shall conform to relevant BIS Specifications.*
7. *In case of mixed occupancy, the firefighting arrangement shall be made as per the highest class of occupancy.*
8. *Requirement of water based first aid fire extinguishers shall be reduced to half if hose reel is provided in the Building.*

Static Water Storage Tank

- A. A satisfactory supply of water exclusively for the purpose of firefighting shall always be available in the form of underground static storage tank with specified capacity with arrangements of replenishment by town's main or alternative source of supply @ 1000 litres per minute. The static storage water supply required for the above mentioned purpose should entirely be accessible to the fire tenders of the local fire service. Provision of suitable number of manholes shall be made available for inspection repairs and insertion of suction hose etc.
- B. The covering slab shall be able to withstand the vehicular load of 45 tonnes in case of high rise and 22 tonnes in case of low rise buildings.
- C. A draw off connection shall be provided. The slab need not strengthened if the static tank is not located in mandatory set-back area.
- D. To prevent stagnation of water in the static water tank, the suction tank of the domestic water supply shall be fed only through an over flow arrangement to maintain the level therein at the minimum specified capacity.
- E. The static water storage tank shall be provided with a fire brigade collecting branching with 4 Nos. 63 mm dia instantaneous male inlets arranged in a valve box with a suitable fixed pipe not less than 15 cm dia to discharge water into the tank. This arrangement is not required where down comer is provided.

Automatic Sprinklers

Automatic sprinkler system shall be installed in the following buildings:

- A. All buildings of 24 m. and above in height, except Housing Projects and 45 m. and above in case of apartment /Housing Projects society building.
- B. Hotels below 15 m in height and above 1000 sqm. built up area at each floor and or if basement is existing.
- C. All hotels, mercantile, and institutional buildings of 15 m and above.
- D. Mercantile building having basement more than one floor but below 15 m (floor area not exceeding 750 sqm.).
- E. Underground Shopping Complex.
- F. Underground car / scooter parking /enclosed car parking.
- G. Basement area 200 sqm. and above.
- H. Any special hazards where the Chief Fire Officer considers it necessary.
- I. For buildings up to 24 m in height where automatic sprinkler system is not mandatory as per these Bye-Laws, if provided with sprinkler installation following relaxation may be considered.
 - i. Automatic heat/smoke detection system and M.C.P. need not be insisted upon.
 - ii. The number of Fire Extinguisher required shall be reduced by half.

Fixed Carbon Di-Oxide / Foam / DCO Water Spray Extinguishing System

Fixed extinguishing installations shall be provided as per the relevant specifications in the premises where use of above extinguishing media is considered necessary by the Chief Fire Officer.

Fire Alarm System

All buildings of 15 m and above in height shall be equipped with fire alarm system, and also residential buildings (Dwelling House, Boarding House and Hostels) above 24 m. height.

- A.** All residential buildings like dwelling houses (including flats) boarding houses and hostels shall be equipped with manually operated electrical fire alarm system with one or more call boxes located at each floor. The location of the call boxes shall be decided after taking into consideration their floor area without having to travel more than 22.5 m.
- B.** The call boxes shall be of the break glass type without any moving parts, where the call is transmitted automatically to the control room without any other action on the part of the person operating the call boxes.
- C.** All call boxes shall be wired in a closed circuit to a control panel in a control room, located as per Bye-Laws so that the floor number from where the call box is actuated is clearly indicated on the control panel. The circuit shall also include one or more batteries with a capacity of 48 hours normal working at full load. The battery shall be arranged to be a continuously trickle charged from the electric mains.
- D.** The call boxes shall be arranged to sound one or more sounders so as to ensure that all occupants of the floor shall be warned whenever any call box is actuated.
- E.** The call boxes shall be so installed that they do not obstruct the exit ways and yet their location can easily be noticed from either direction. The base of the call box shall be at a height of 1.5 m from the floor level.
- F.** All buildings other than as indicated above shall, in addition to the manually operated electrical fire alarm system, be equipped with an automatic fire alarm system.
- G.** Automatic detection system shall be installed in accordance with the relevant standard specifications. In buildings where automatic sprinkler system is provided, the automatic detection system may not be insisted upon unless decided otherwise by the Chief Fire Officer.

Note: Several type of fire detectors are available in the market but the application of each type is limited and has to be carefully considered in relation to the type of risk and the structural features of the building where they are to be installed.

Control Room

There shall be a control room on the entrance floor of the building with communication system (suitable public address system) for all floors and facilities for receiving the message from different floors. Details of all floor plans along with the details of fire-fighting equipment and installation shall be maintained in the Control Room. The Control Room shall also have facility to detect the fire on any floor through indicator boards connecting fire detection and alarm system on all floors. The staff in charge of the Control Room shall be responsible for the maintenance of the various services and fire-fighting equipment and installation. The Control Room shall be manned round the clock by trained fire-fighting staff.

Fire Drills and Fire Orders

The guidelines for fire drill and evacuation etc. for high-rise building shall be as per Part-IV of National Building Code of India. All such building shall prepare the fire orders duly approved by the Chief Fire Officer.

A qualified fire officer and trained staff shall be appointed for the following buildings.

- A.** All high rise buildings above 30 m in height where covered area of one floor exceeds 1000 sqm. except apartments / Housing Projects.
- B.** All hotels, identified under classification three star and above category by Tourism Department and all hotels above 15 m in height with 150 bed capacity or more without star category.
- C.** All hospital building of 15 m and above or having number of beds exceeding 100.
- D.** Underground shopping complex where covered area exceeds 1000 sqm.
- E.** All high hazard industries.
- F.** Any other risk which Chief Fire Officer considers necessary.

The lightening protection warning light (red) for high-rise buildings shall be provided in accordance with the relevant standard. The same shall be checked by electrical department.

Material Used for Construction of Building

- A.** Combustible/flammable material shall not be used for partitioning, wall panelling, false ceiling etc. Any material giving out toxic gases/smoke if involved in the fire shall not be used for partitioning of a floor or wall panelling or a false ceiling etc. The surface frames spread of the lining material shall conform to class-I of the standard specification. The framework of the entire false ceiling shall be provided with metallic sections and no wooden framework shall be allowed for panelling/false ceiling.
- B.** Construction features/elements of structures shall conform to National Building Code of India and BIS codes.

LPG

The use of LPG shall not be permitted in the high-rise building except residential/hotel/hostel/kitchen/pantry (if any) and shall be located at the periphery of the building on the ground level.

House Keeping

A high standard of housekeeping shall be insisted upon by all concerned. There must be no laxity in this respect. It must be borne in mind that fire safety is dependent to a large extent upon good housekeeping.

A. Good House-Keeping includes the following:-

- i. Maintaining the entire premises in neat and clean condition.
- ii. Ensuring that rubbish and combustible material are not thrown about or allowed to accumulate, even in small quantity, in any portion of the building. Particular attention must be paid to corners and places hidden from view.
- iii. Providing metal receptacles/waste paper basket (of non-combustible material) at suitable locations for disposal of waste. Separate receptacles

must be provided for disposal of cotton rags/waste, wherever it is generated, these must under no circumstances be left lying around in any portion of the building.

- iv. Ensuring that receptacles for waste are emptied at regular intervals and the waste removed immediately for safe disposal outside the building.
- v. Ensuring that all doors/fixtures are maintained in good repairs, particular attention must be paid to self-closing fire smoke check doors and automatic fire/doors/rolling shutters.
- vi. Ensuring that self-closing fire/smoke check doors close properly and that the doors are not wedged open.
- vii. Ensuring that the entire structure of the building is maintained in good repairs.
- viii. Ensuring that all electrical and mechanical service equipments are maintained in good working condition at all times.
- ix. Ensuring that Cars / Scooters etc. are parked systematically in neat rows. It is advisable to mark parking lines on the ground in the parking areas near the building and in the parking area on ground floor and in basement(s); as applicable, inside the building. A parking attendant must ensure that vehicles are parked in an orderly manner and that the vehicles do not encroach upon the open space surrounding the building.

B. Smoking Restrictions

- i. Smoking shall be prohibited throughout the basement(s) and in all areas where there is a profusion of combustible materials. Easily readable "NO SMOKING" signs must be conspicuously posted at locations where they can catch the eye. Each sign must also include a pictograph. The sign may also be illuminated.
- ii. In all places where smoking is permitted, ashtrays half filled with water, must be placed on each table/at each other suitable locations for safe disposal of spent smoking material. The design of the ashtrays must be such that they cannot easily topple over. If, for any reason, this is not practicable a minimum of one metal bucket or other non-combustible container half filled with water must be provided in each compartment for disposal of spent smoking materials.

C. Limiting the Occupant Load in Parking and Other Areas of Basement

- i) Where parking facility is provided in the basement(s) no person other than the floor-parking attendant may be allowed to enter and remain in the parking areas except for parking and removal of Cars/Scooters.
- ii) Regular offices must not be maintained in the storage /parking area in the basement(s). The stores / godowns must be opened for the limited purpose for keeping or removing stores.
- iii) No person other than those on duty may be permitted in the air conditioning plant room(s), HL/LT switch room, transformer compartment, control room pump-house, generator room, stores and records etc.

Fire Prevention

In addition to the measures recommended above, the following fire prevention measures must be implemented when the building is in occupation.

- i. Storage of flammable substances, such as diesel oil, gasoline, motor oils, etc. must not be allowed anywhere within the building. The only exception to this rule may be:
 - a. Storage of diesel oil in a properly installed tank in a fire-resisting compartment in the generator room;
 - b. Diesel oil, gasoline, motor oil etc., filled in the vehicle tanks.
- ii. Preparation of tea and warming of food must be prohibited throughout the building.
- iii. Where heaters are used during winters, the following precautions must be taken.
 - a. All heaters, except convector heaters, must be fitted with guards.
 - b. Heaters must not be placed in direct contact with or too close to any combustible material.

- c. Heaters must be kept away from curtains to ensure that the latter do not blow over the heater accidentally.
- d. Heaters must not be left unattended while they are switched on.
- e. Defective heaters must be immediately removed from service until they have been repaired and tested for satisfactory performance.
- f. Use of heaters must be prohibited in the entire basement, fire control room and in all-weather maker rooms throughout the building. Also in all places where there is profusion of combustible flammable materials.
- iv. Use of candles or other naked light flame must be forbidden throughout the building, except in the offices (for sealing letters only) and kitchen. When candles/spirit lamps are used for sealing letters/packets, extreme care must be taken to ensure that paper does not come in direct contact with the naked flame and the candle/spirit lamp does not topple over accidentally while still lighted. All candles/spirit lamps kitchen fires must be extinguished when no longer required.
- v. Fluorescent lights must not be directly above the open file racks in offices/record rooms. Where this is unavoidable, such lights must be switched on only for as long as they are needed.
- vi. Filling up of old furniture and other combustible materials such as scrap paper, rags, etc. must not be permitted anywhere in the building. These must be promptly removed from the building.
- vii. More than one portable electrical appliance must not be connected to any single electrical outlet.
- viii. Used stencils, ink smeared combustible materials and empty ink tubes must not be allowed to accumulate in rooms/compartments where cyclostyling is done. These must be removed and disposed off regularly.
- ix. All shutters/doors of main switch panels and compartments/shafts for electrical cables must be kept locked.
- x. Aisles in record rooms and stores must have a clear uniform width of not less than 1.0 m Racks must not be placed directly against the wall/partition.
- xi. In record rooms, offices and stores, a clear space of not less than 30 cm. must be maintained between the top-most stack of stores/records and the lighting fittings.
- xii. A similar clearance, and at (xi) above must be maintained from fire detectors.
- xiii. Fire detectors must not be painted under any circumstances and must also be kept free from lime/distemper.
- xiv. Records must not be piled/dumped on the floor.
- xv. Welding or use of blow torch shall not be permitted inside the building, except when it is done under strict supervision and in full conformity with the requirements laid down in IS: 3016-1966 code of practice for fire precautions in welding and cutting operation.
- xvi. Printing ink/oil must not be allowed to remain on the floor, the floor must be maintained in a clean condition at all times.

Occupancy Restrictions

- A.** The premises leased to any party shall be used strictly for the purpose for which they are leased.
- B.** No dangerous trade/practices (including experimenting with dangerous chemicals) shall be carried on in the leased premises;
- C.** No dangerous goods shall be stored within the leased premises.
- D.** The common/public corridor shall be maintained free of obstructions, and the lessee shall not put up any fixtures that may obstruct the passage in the corridor and/or shall not keep any wares, furniture or other articles in the corridor.
- E.** The penalty for contravention of the condition laid down below must be immediate termination of lease and removal of all offending materials.
- F.** Regular inspection and checks must be carried out at frequent intervals to ensure compliance with conditions above.

Annexure V

(see regulation 42 (1))

Standards for Rainwater Harvesting System

1. Introduction

The storage of rain water 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 rain water harvesting and the structures generally used are:-

- a. **Pits:** Recharge pits are constructed for recharging the shallow aquifer. These are constructed 1 to 2 m, wide and to 3 m 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 1 m wide, 1 to 1.5 m deep and 10 to 20 m 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.

2. Illustrations of Common Harvesting Techniques

Figure.1 Rainwater harvesting and groundwater recharge for individual plotted house (by percolation pits and well-cum-channel)

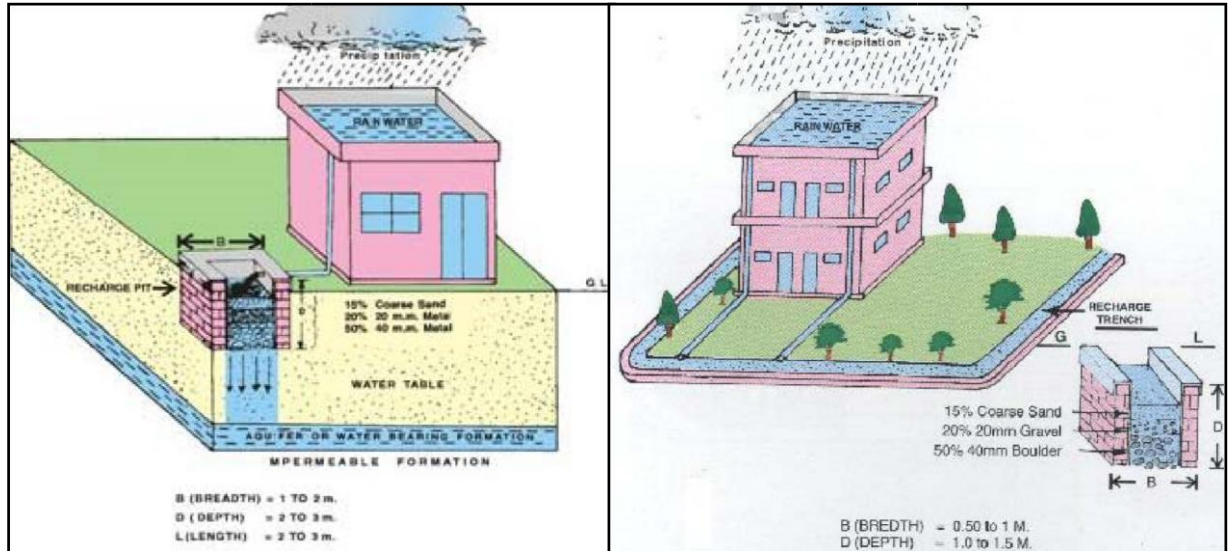


Figure. 2: Rainwater harvesting and groundwater recharge for individual plotted house and multi-storied residential building (by storage sump and percolation pits)

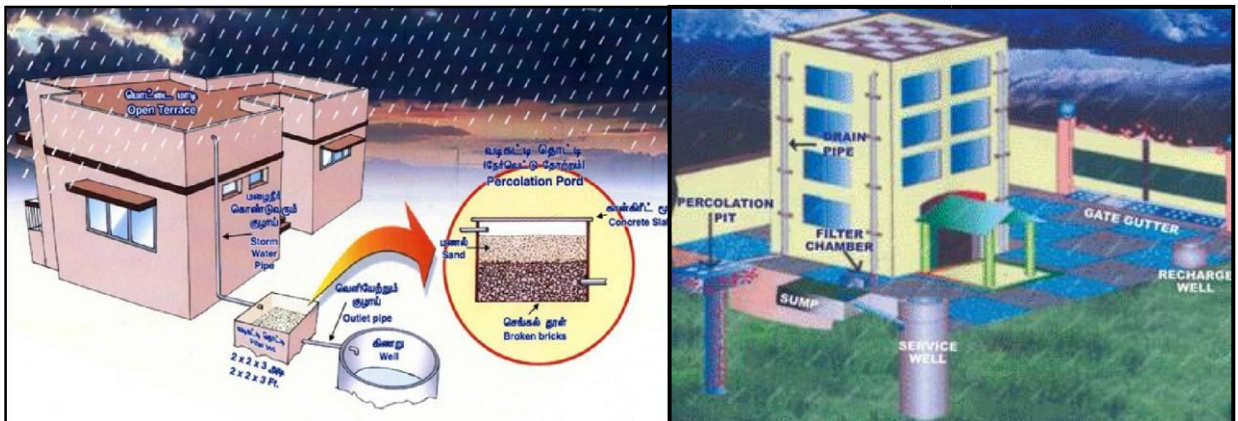


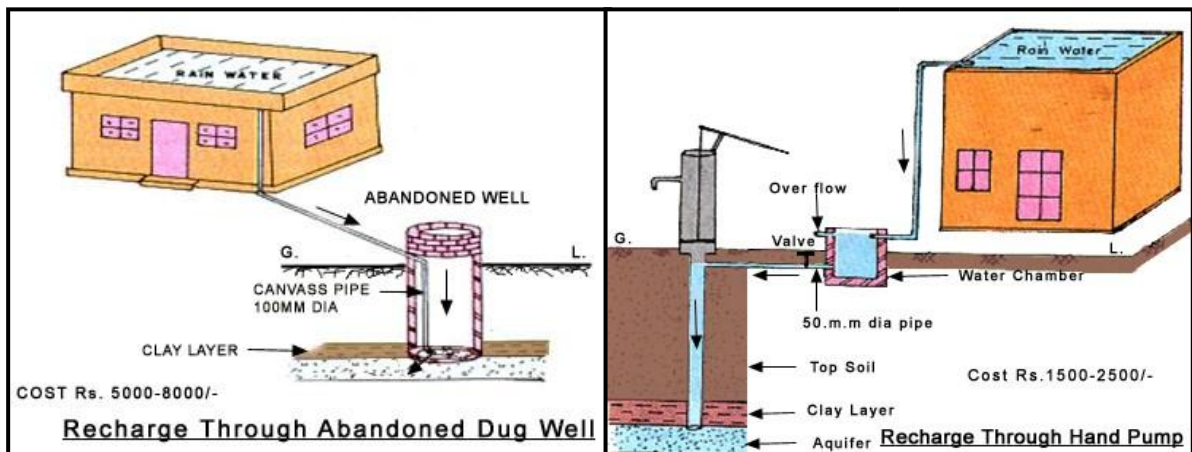
Figure. 3 Rainwater harvesting for parks/open spaces



Figure. 4 Rainwater collection (through downpipes and sieves)



Figure. 5: Rainwater collection and Groundwater recharge (through abandoned wells and Hand pumps)



Annexure VI

(see regulation 45 (3))

Applicability of Odisha Energy Conservation Building Code (OECBC) – 2010

2.1. Applicable Building system:

The provisions of this code shall apply to:

- (a) building envelopes, except for non-air conditioned storage spaces or warehouses,
- (b) mechanical systems and equipment, including heating, ventilating and air conditioning,
- (c) service hot water heating,
- (d) interior and exterior lighting, and
- (e) electrical power and motors.

2.2. Exemptions:

The provisions of this code shall not apply to:

- (a) Buildings that do not use either electricity or fossil fuel, and
- (b) Equipment and portions of building systems that use energy primarily for manufacturing processes.

2.3. Safety, Health and Environmental Codes Take Precedence:

Where this code is found to conflict with safety, health, or environmental codes, the safety, health, or environmental codes shall be take precedence.

2.4. Reference Standards:

Energy Conservation Building Code, 2007 and National Building Code of India are the primary reference documents/standard for lighting levels, HVAC, comfort levels, natural ventilation, pump and motor efficiencies, transformer efficiencies and any other building materials and system performance criteria.

3.1. Compliance Requirements:

3.1.1. Mandatory Requirements:

Compliance with the requirements of this energy code shall be mandatory for all applicable buildings as specified in Clause (2).

3.1.2. New Buildings:

New buildings shall comply with either the provisions of Clause (4) through Clause (9) of this code or the whole Building Performance Method of Appendix B (11)

3.1.3. Additions to Existing Buildings:

Where the addition plus the existing building exceeds the conditioned floor area of Clause (2), the additions shall comply with the provisions of Clause-4 through Clause (9). Compliance may be demonstrated in either of the following ways:

- (a) The addition alone shall comply with the applicable requirements, or
- (b) The addition, together with the entire existing building, shall comply with the requirements of this code that would apply to the entire building, as if it were a new building.

Exception to Clause (3): When space conditioning is provided by existing systems and equipment, the existing systems and equipment need not comply with this code. However, any new equipment installed must comply with specific requirements applicable to that equipment.

3.1.4. Alterations to Existing Buildings:

Where the existing building exceeds the conditioned floor area threshold in Clause (2), portions of a building and its systems that are being altered shall meet the provisions of Clause (4) through Clause (9). The specific requirements for alterations are described in the following sub-sections

Exception to Clause (4): When the entire building complies with all of the provisions of Clause (4) through Clause (9) as if it were a new building.

3.1.4.1. Building Envelope:

Alterations to the building envelope shall comply with the requirements of Clause (4) or fenestration, insulation, and air leakage applicable to the portions of the building and its systems being altered.

Exception to Clause (4.1): The following alterations need not comply with these requirements provided such alterations do not increase the energy usage of the building:

- (a) Replacement of glass in an existing sash and frame, provided the U-factor and SHGC of the replacement glazing are equal to or lower than the existing glazing.
- (b) Modifications to roof/ceiling, wall, or floor cavities, which are insulated to full depth with insulation
- (c) Modifications to walls and floors without cavities and where no new cavities are created.

3.1.4.2. Heating, Ventilation and air conditioning:

Alterations to building heating, ventilating, and air conditioning equipment or systems shall comply with the requirements of Clause (5) applicable to the portions of the building and its systems being altered. Any new equipment or control devices installed in conjunction with the alteration shall comply with the specific requirements applicable to that equipment or control device.

3.1.4.3. Service Water Heating:

Alterations to building service water heating equipment or systems shall comply with the requirements of Clause (6) applicable to the portions of the building and its systems being altered. Any new equipment or control devices installed in conjunction with the alteration shall comply with the specific requirements applicable to that equipment or control device.

3.1.4.4. Lighting:

Alterations to building lighting equipment or systems shall comply with the requirements of Clause (7) applicable to the portions of the building and its systems being altered.

New lighting systems, including controls, installed in an existing building and any change of building area type as listed in Table 7.1 shall be considered an alteration. Any new equipment or control devices installed in conjunction with the alteration shall comply with the specific requirements applicable to that equipment or control device.

Exception to Clause (4.4): Alterations that replace less than 50% of the luminaries in a space need not comply with these requirements provided such alterations do not increase the connected lighting load.

3.1.4.5. Electric Power and Motors:

Alterations to building electric power systems and motor shall comply with the requirements of Clause (8) applicable to the portions of the building and its systems being altered. Any new equipment or control devices installed in conjunction with the alteration shall comply with the specific requirements applicable to that equipment or control device.

3.1.4.6. Star Labeling and minimum star rating:

All equipment and materials of type and specification coming under the purview of the star labeling programme as notified by BEE and as amended from time to time shall have minimum star rating as notified by the Government of Odisha or as amended from time to time. Refer to Appendix-K for further details.

3.2. Compliance Approaches:

The building shall comply first with all the mandatory provisions (4.2, 5.2, 6.2, 7.2 and 9) and either of the following:—

(a) Prescriptive Method (4.3, 5.3, 7.3)

Exception to 3.2(a): The envelopes trade -off option of 4.4, may be used in place of the prescriptive criteria of 4.3.

(b) Whole Building Performances Method (Appendix B-11)

The OECBC compliant buildings in the design stage shall achieve an Energy Performance Index value at least that of a three star level building as specified in Appendix-H, Annexure-II.

3.3. Administration Requirements:

Administrative requirements relating to permit requirements, enforcement interpretations, claims of exemption, approved calculation methods, and rights of appeal are specified by the authority having jurisdiction.

Annexure VII

(see regulation 47)

Standards for Water Supply Requirements

Per-capita Water Requirement for Various Occupancies / Uses

Sl. No.	Type of Occupancy	Consumption per capita per day (in litres)
1	Residential a) In living units b) Hotels with lodging accommodation (per bed)	135 180
2	Educational a) Day schools b) Boarding Schools	45 135
3	Institutional (Medical Hospitals) a) No. of beds not exceeding 100 b) No. of beds exceeding 100 c) Medical quarters and hostels	340 450 135
4	Assembly- Cinema theatres, auditoria, etc. (per seat accommodation)	15
5	Government or semi-public business	45
6	Mercantile (Commercial) a) Restaurants (per seat) b) Other business building	70 45
7	Industrial a) Factories where bath-rooms are to be provided b) Factories where bath-rooms are not to be provided	45 30
8	Storage (including Warehouses)	30
9	Hazardous	30
10	Intermediate Rail Stations (excluding mail and express stops).	45(25) ¹
11	Junction Station	70(45)*
12	Terminal Stations	45
13	International and Domestic Airports	70

The values in parenthesis are for such stations, where bathing facilities are not provided.

Note: The number of persons for Sl. No. 10 to 13 shall be determined by the average number of passenger handled by the station daily with due consideration given to the use the facilities.

Flushing Storage Capacities

Sl. No.	Classification of Building	Storage Capacity
1.	For tenements having common conveniences	900 lt. net per w.c. seat
2.	For residential premises other than tenements having common conveniences	270 lt. net for one w.c. seat each and 180 lt. for each additional seat.
3.	For factories and workshops	900 lt. per w.c. seat and 180 lt. per urinal.

¹The values in parenthesis are for such stations, where bathing facilities are not provided.

Annexure VIII

(see regulation 64 (1))

IS Standards for Structural Safety

Sl. No	Title	Code
For General Structural Safety		
1	"Code of Practice for Plain and Reinforced Concrete"	IS: 456:2000
2	"Code of Practice for General Construction in Steel"	IS: 800-2007
3	"Code of Practice for Use of Cold Formed Light Gauge Steel Structural Members in General Building Construction"	IS: 801-1975
4	Design loads (other than earthquake) for buildings and structures Part 2 Imposed Loads.	IS 875 (Part 2):1987
5	Design loads (other than earthquake) for buildings and structures Part 3 Wind Loads.	IS 875 (Part 3):1987
6	Design loads (other than earthquake) for buildings and structures Part 4 Snow Loads.	IS 875 (Part 4):1987
7	Design loads (other than earthquake) for buildings and structures Part 5 special loads and load combination.	IS 875 (Part 5):1987
8	"Code of Practice for Design of Structural Timber in Building"	IS: 883:1994
9	"Code of Practice for Structural Safety of Buildings: Foundation"	IS: 1904:1986 (R 2005)
10	"Code of Practice for Structural Safety of Buildings: Masonry Walls"	IS 1905:1987
11	"Code of Practice for Design and Construction of Pile Foundation Section 1" Part 1: Section 2 Bored Cast-in-situ Piles Part 1: Section 3 Driven Precast Concrete Piles Part 1: Section 4 Bored Precast Concrete Piles Part 2: Timber Piles Part 3: Underreamed Piles Part 4: Load Test on Piles	IS 2911 (Part 1): Section 1: 2010
For Cyclone/Wind Storm Protection		
12	"Code of Practice for Design Loads (other than Earthquake) for Buildings and Structures, Part 3, Wind Loads"	IS 875 (3):1987
13	Guidelines for improving the Cyclonic Resistance of Low rise houses and other building.	IS 875 (3)-1987
For Earthquake Protection		

14	"Criteria for Earthquake Resistant Design of Structures (Fifth Revision)"	IS: 1893 (Part 1)-2002
15	"Ductile Detailing of Reinforced Concrete Structures subjected to Seismic Forces - Code of Practice"	IS:13920-1993
16	"Earthquake Resistant Design and Construction of Buildings - Code of Practice (Second Revision)"	IS:4326-2013
17	"Improving Earthquake Resistance of Low Strength Masonry Buildings - Guidelines"	IS:13828-1993
18	"Improving Earthquake Resistance of Earthen Buildings Guidelines"	IS:13827:1993
19	"Seismic Evaluation, Repair and Seismic Strengthening of Buildings -Guidelines"	IS:13935-2009
For Protection of Landslide Hazard		
20	Guidelines for retaining wall for hill area: Part 1 Selection of type of wall.	IS 14458 (Part 1): 1998
21	Guidelines for retaining wall for hill area: Part 2 Design of retaining/breast walls	IS 14458 (Part 2): 1997
22	Guidelines for retaining wall for hill area: Part 3 Construction of dry stone walls	IS 14458 (Part 3): 1998
23	Guidelines for preparation of landslide – Hazard zonation maps in mountainous terrains: Part 2 Macro-zonation.	IS 14496 (Part 2): 1998

Annexure IX

(See Regulation 66)

Standards for Fire Protection & Fire Safety Requirements

CLASSIFICATION OF INDUSTRIES

GROUP - A: HOUSEHOLD INDUSTRIES

- (1). Agarbatti and similar products
- (2). Aluminium hanger (excluding wire drawing and anodizing)
- (3). Ayurvedic/Homoeopathic/Unani medicines
- (4). Assembly and repair of electronic goods.
- (5). Assembly and repair of sewing machine
- (6). Assembly of hand tools.
- (7). Assembly of Badminton shuttlecocks
- (8). Assembly and repair of electrical gadgets, cooler/heater etc
- (9). Assembly and repair of typewriter (excluding Font Casting)
- (10). Assembly of Bakelite Switches
- (11). Assembly and repair of measuring instruments (excluding handling of Mercury and hazardous materials)
- (12). Atta Chakkies
- (13). Batik works
- (14). Block making and photo enlarging
- (15). Biscuit, pappey, cakes and cookies making
- (16). Button making, fixing of button and hooks
- (17). Bookbinding
- (18). Brushes and brooms (by hand)
- (19). Calico and Textile products
- (20). Cane and bamboo products
- (21). Cassettes recording
- (22). Clay and modeling with/without Plaster of Paris
- (23). Coir and jute products
- (24). Cardboard boxes
- (25). Candles
- (26). Copper and brass art wares
- (27). Cordage, rope and twine making
- (28). Carpentry
- (29). Contact Lens

- (30). Canvas bags and hold-alls making
- (31). Candies, sweets, rasmalai etc (when not canned)
- (32). Cotton/silk printing (by hand)
- (33). Computer repairing and cyber information Centre
- (34). Computer Software
- (35). Dari and carpet weaving
- (36). Detergent (without bhatti)
- (37). Data process
- (38). Dairy products e.g. Cream, ghee, paneer etc
- (39). Dry Cleaning (excluding big workshops)
- (40). Desk Top Publishing
- (41). Embroidery
- (42). Enameling Vitreous (without use of coal)
- (43). Framing of pictures and mirrors
- (44). Fountain pens, ball pens and felt pens
- (45). Gold and Silver thread, kalabattu
- (46). Hosiery products (without dyeing and bleaching)
- (47). Hats, caps, turbans including embroideries
- (48). Information Technology enabled services
- (49). Ink making for fountain pens
- (50). Interlocking and buttoning
- (51). Jewellery items
- (52). Khadi and handloom
- (53). Khus tatties
- (54). Knitting works
- (55). Lace products
- (56). Leather footwear
- (57). Leather belts and assembly of buckles (by hand)
- (58). Leather and rexine made ups
- (59). Milk Cream Separation
- (60). Manufacture of jute products
- (61). Manufacture of Bindi
- (62). Name plate making
- (63). Production of following items
 - i) Blanco cakes
 - ii) Brushes
 - iii) Kulfi and confectionery
 - iv) Crayons

- v) Jam, jellies and fruit preserves
 - vi) Musical instruments (including repairs)
 - vii) Lace work and like
 - viii) Ornamental leather goods like purses, handbags
 - ix) Small electronic components
- (64). Paper stationery items and book binding
 - (65). Pith hat, garlands of flowers and pitch
 - (66). P.V.C. products (maximum one moulding machine)
 - (67). Paper machine
 - (68). Perfumery and cosmetics
 - (69). Photosetting
 - (70). Photostat and cyclostyling
 - (71). Photocopying of drawings including enlargement of drawings.
 - (72). Packaging of Shampoos
 - (73). Packaging of Hair Oil
 - (74). Preparation of Vadi, Papad etc
 - (75). Processing of condiments, spices, groundnuts and dal etc.
 - (76). Pan masala
 - (77). Production of Sweets and Namkeens (less than one ton/day)
 - (78). Paper Mache
 - (79). Paper cup, Plates, files cover and letter pads (without printing)
 - (80). Photography (developing and printing)
 - (81). Repair of watches and clocks
 - (82). Rakhee making
 - (83). Repair of domestic electrical appliances
 - (84). Readymade garments (without washing)
 - (85). Repair of bicycles
 - (86). Repair and assembly of computer hardware
 - (87). Repair of bags, brief cases, suitcases, except use of leather and PVC material.
 - (88). Repairing of Water meters, stabilizer, UPS etc
 - (89). Rubber Stamps
 - (90). Stone engraving
 - (91). Sports goods/Sports Nets
 - (92). Surgical bandage rolling and cutting
 - (93). Stove pipe, safety pins and aluminium buttons (by hand press)
 - (94). Silver foil making
 - (95). Saree fall making
 - (96). Shoe laces

- (97). Stamp pads
- (98). Screen Printing
- (99). Tailoring
- (100). Thread balls and cotton fillings
- (101). Toys and dolls
- (102). Ties
- (103). Tomato Ketchup
- (104). Umbrella assembly
- (105). Utensil washing powder (only mixing and packaging)
- (106). Velvet embroidered shoes/shawls
- (107). Vermicelli and macaroni
- (108). Wood carving and decorative wood wares
- (109). Wool balling and lachee making
- (110). Wooden/Cardboard jewellery boxes (subject to no objection certificate from the department).
- (111). Wool-knitting (with machine).
- (112). Zari Zardozi

GROUP A – I: HOUSEHOLD INDUSTRIES PERMISSIBLE IN VILLAGES (ABADI)

- (1). Black smithy
- (2). Cane and bamboo products
- (3). Clay and modelling with/without Plaster of Paris
- (4). Dari/Carpet/Sari weaving (except dying and bleaching)
- (5). Ice cream and water-cooling by Refrigeration (without cold storage)
- (6). Stone engraving
- (7). Village pottery Industry (without bhatti)
- (8). Village oil ghani
- (9). Wood carving and decorative wood wares

None of the industries mentioned in Group A and A-1 shall carry out the following processes:

- (1). Anodising
- (2). Bleaching
- (3). Burning of coal
- (4). Canning Facility
- (5). Dyeing
- (6). Electroplating
- (7). Moulding works
- (8). Use of CFC gases
- (9). Varnishing
- (10). Washing

Notes:

- i. Storing of chemicals listed under schedule I and/ or II of the Manufacture, Storage and import of hazardous Chemical Rules, 1989 and Public Liability Insurance Act, 1990 shall be prohibited
- ii. No effluent/emissions shall be allowed to be generated by the units and these shall adhere to the noise standards as stipulated by Ministry of Environment and Forests, Government of India

ANNEXURE II

GROUP- B: INDUSTRIES PERMISSIBLE IN COMMERCIAL CENTRES

- (1). Air Conditioner Parts
- (2). Aluminium doors/windows/ fittings/furniture
- (3). Assembly and repair of Cycles
- (4). Auto parts
- (5). Belt and Buckles
- (6). Bulbs (battery)
- (7). Cloth Dyeing
- (8). Cotton ginning
- (9). Cycle Chain/Locks
- (10).Diamond Cutting and Polishing work
- (11).Electric fittings (switch, plug pin etc)
- (12).Elastic products
- (13).Engineering works
- (14).Foundry (small job works as per prescribed limits of Industries Department/DPCC).
- (15).Ice-cream and water cooling by Refrigeration (without cold storage)
- (16).Ice boxes and cooler bodies
- (17).Iron grills and door making
- (18).Jute products
- (19).Key Rings
- (20).Knife making
- (21).Marble stone items

- (22).Metal lathe cutting

- (23).Motor winding works

- (24).Printing Press.

- (25).Screws and nails

- (26).Scissors making

- (27).Spectacles and Optical frames

- (28).Steel Furniture/Almirah

- (29).Steel lockers

- (30).Steel Springs

- (31).Surgical instruments and equipments

- (32).Table lamps and shades

- (33).Tin box making

- (34).Transformer covers

- (35).TV, Radio, Cassette recorders etc

- (36).TV/Radio/Transistor cabinets

- (37).Typewriter parts manufacturing and assembly

- (38).Water meter repairing

- (39).Water tanks

- (40).Welding works

- (41).Wire Knitting

- (42).Wooden furniture works

- (43).Information Technology enabled Services

ANNEXURE III: PROHIBITED/NEGATIVE LIST OF INDUSTRIES

Industries manufacturing the following shall be prohibited within National Capital Territory of Delhi

- (1). Arc/induction furnace
- (2). Acids
- (3). Alkalis
- (4). Animal & fish oils
- (5). Aldehydes
- (6). Acid slurry
- (7). Acetylides, phridines, iodoform, chloroform, E-nepthol, etc
- (8). Ammonium sulphoajanide, arsenic and its compounds, barium carbonate, barium cyanide, barium ethyle sulphate, barium acetate cinnabar, copper sulphoicyanide, ferrocyanide, hydro cyanide, hydro cyanic acid, potassium biocalate, potassium cyanide, prussiate of potash, phynigallc acid, silver cyanide.
- (9). Aircraft building
- (10). Abattoirs, animal blood processing (except existing and relocation)
- (11). Bitumen blowing (hot)
- (12). Brick kiln (using fresh earth as raw material, coal as fuel).
- (13). B—nepthol
- (14). Bakelite powder (starting from formaldehyde)
- (15). Barely malt and extract
- (16). Bone-grist, bone-meal, salting of bones, storages of bones in open, bone drying
- (17). Bone charcoal manufacturing
- (18). Blast furnaces – coal fired
- (19). Bicycles (integrated plant)
- (20). Brewery and potable spirits
- (21). Chlorinated paraffin wax purification
- (22). Carbon black
- (23). Cement industry
- (24). Calcium carbide, phosphorous, aluminum dust paste and power, copper, zink etc
(electrothermal industries)
- (25). Cranes, hoists and lifts (excluding assembly)

- (26).General industrial machinery (such as hydraulic equipments, drilling equipments boilers etc)
- (27).DOP (Diocetyl Phthalate), DBP & Plasticizer
- (28).Dry cell battery
- (29).Dye & dye intermediates
- (30).Distillation of wood, chemical seasoning of wood (excluding natural seasoning)
- (31).Explosives, i.e., Fireworks, Gunpowder, Guncotton etc
- (32).Earth moving machinery/equipment (manufacturing of assembly)
- (33).Electric wires and cables (more than 100 workers, 2000 sqm plot
- (34).Fatty acids
- (35).Fungicides & pesticides
- (36).Flexographic ink
- (37).Fuel oils, illuminating oils and other oils such as sthetic oil, shoal oil, lubricants
- (38).Foundaries (except Pit Furnace)
- (39).Gas Compressors
- (40).Graphite production
- (41).Glass furnace (more than 1 ton/day capacity)
- (42).Gases-carbon-disulphide, ultramarine blue, chlorine, hydrogen, sulphur dioxide, acetylene, etc. (other than LPG/CNG/Oxygen/medical gases)
- (43).Glandular/glandes extraction
- (44).Glue and gelatin from bones and flesh
- (45).Hot mix plant (except those approved by DPCC/CPCB)
- (46).Hazardous waste processing viz. hospital/medical/industrial waste
- (47).Polyurethane foam
- (48).Industrial gelatin, nitro glycerine and fulminate
- (49).Iron/steel metal forging (using pneumatic hammer).
- (50).Industrial gelatin, nitro glycerine and fulminate
- (51).Industrial trucks, trailers etc.
- (52).Linear alkyd benzene
- (53).Lead manufacturing including secondary lead industry (recovery of lead from waste scrap)
- (54).Lime kiln
- (55).Leather tanning and dyeing (raw hides/skins to semi finish)

- (56).Locomotives and wagons
- (57).Methanol
- (58).Methylated spirit
- (59).Mechanical stone crushers & washing of coarse sand
- (60).Manufacturing of pulp & paper
- (61).Melamine resin
- (62).Mineral salts (which involve use of acids: CuSO_4 , FeSO_4 , alum, etc.)
- (63).Manufacturing of diesel engines, generators except assembly
- (64).Motor cycles, scooters cars, tempos, trucks etc.
- (65).News print manufacturing, pulping, fresh paper making
- (66).Nitrogeneors and phosphatic fertilizers, except mixing of fertilizers for compounding (large scale)
- (67).Organic solvent, chlorinated minerals, methanol, aldehydes, methylated spirits
- (68).Petroleum coke processing, not as fuel
- (69).Potteries/refractories (using coal or furnace oil)
- (70).Polyethylene polymers including reins
- (71).Paint industry (nitro Cellulose & Alkyd resin based)
- (72).Plasticisers manufacturing
- (73).Pyridines
- (74).Phenol formaldehyde resin and powder
- (75).Porcelain product potteries (using coal of production capacity more than 2 tonne per day)
- (76).Rubber solution and thinner (using naphtha and rubber scrap)
- (77).Roasting of Ore Sulphide Oxides of mixtures
- (78).Rayon fibre manufacturing
- (79).Refractories
- (80).Reclamation of rubber
- (81).Production of tyres and tubes (devulcanisation)
- (82).Saccharine
- (83).Secondary Zine industry
- (84).Synthetic rubber
- (85).Smelting
- (86).Sewing machines (integrated units) except assembly

- (87).Sluice gates and gears
- (88).Stainless Steel Pickling
- (89).Steam engines
- (90).Steel pipes and tubes (continuous welded/seamless)
- (91).Sugar, khand sari
- (92).Sodium silicate industry (more than 1 tonne/day)
- (93).Stone quarrying
- (94).Textile (more than 100 workers in all shifts, 1 acre of land, 100 LKD of water)
- (95).Thorium, radium and similar isotopes and recovery of rare earth
- (96).Turbines
- (97).Urea & Phenyl Formaldehyde resin
- (98).Vegetable oil hydrogenated
- (99).Waste (crude/burnt) oil processing (refinery)

Notes:

- i) A public utility service involving any of the activities referred to above shall be permitted subject to environmental laws.

Further additions/alterations to the list of Prohibited Industries could be made if considered appropriate and in public interest by the Central Government to do so.

Form I

(see regulation 8 (5))

Application for drawing of Attention

From:

To

THE VICE-CHAIRMAN
KALINGA NAGAR DEVELOPMENT AUTHORITY,
JAJPUR ROAD

Subject: Statutory Notice under Regulation-68.

Madam/Sir,

I/We do bring to your kind notice that the Technical person who had supervised the erection/re-erection of the building had submitted the completion certificate to the Kalinga Nagar Development Authority on _____ with respect to plot No. _____, Khata No. _____ village / Mouza: _____ of _____ Municipality/ NAC within Development Plan area of _____ for issue of occupancy certificate.

Two months have elapsed since the submission of application and I/We have not received any communication with respect to the said application. Please take notice that if within a further period of two months from the date of receipt of this notice by you, no communication either granting or refusing occupancy certificate is received by me/us, I /We shall presume that issue of occupancy certificate as applied for has been granted in my/our favour.

Yours faithfully,
Signature of the applicant(s)

Form II

(see regulation 9)

Register to be maintained under sections 16 (11) and 16 (12) of the ODA, 1982 Act

Sl. No.	Name & address of applicant	Date of receipt	Date of permission with letter No.	Date of refusal with Letter No.	Date of endorsement to Enforcement Branch	Date of return from Enforcement Branch	Date of sending to record room	Signature of the dealing Assistant	Signature of the S.O.

Form III

(see regulation 36 (4) (i))

Indemnity Bond for Basement

This Indemnity Bond is executed by Shri/Smt._____S/O,D/O,W/O Shri/Smt._____ R/O_____ in favour of Kalinga Nagar Development Authority.

Whereas the executant has submitted to the concerned Authority the plans for, sanction of basement over Plot No._____ Mz/Vill_____ under the provisions of the Act and and Rules and Building Regulations made there under:-

And whereas the concerned Authority has agreed to sanction the aforesaid construction subject to the conditions that the owner shall indemnify the concerned Authority in the event of any loss or damage being cause to the adjoining building on account of the construction of the said basement either at the time of digging of its foundations or in the course of its construction or even thereafter and also against any claim of any concern thereto.

And whereas the executant has agreed to execute an indemnity bond to the above affect and also to abide by the terms imposed by the concerned Authority to the grant of sanction for construction of the basement.

Now this deed witnesses:

1. That in consideration of the sanction of the plans by KNDA for construction of the basement the executant undertakes that he/she shall at all times keep KNDA free from any liability, loss or damages/flowing from any injury or damage caused to the adjoining built-up properties or to any person as a consequence of the construction of at the time of digging of its foundations or during the course of its construction or at any time thereafter.
2. The owner agreed and undertakes that in the event of any claim being made by any person or persons against the concerned Authority either in respect of the sanction granted by the concerned Authority to the owner for the construction of basement or in respect of the construction or manner of construction of the basement by the owner of the consequences flowing from the said sanction the executant shall be responsible and liable and not KNDA.
3. The executant agrees and undertake to indemnify the concerned Authority fully in respect of any amount which the concerned Authority may be required to pay to any person either by way of compensation or on any other account as a result of any claim or suit or any other proceedings concerning the sanctioning of the construction of the basement of the making thereof and also in respect of the costs and expenses which the concerned Authority may incur on defending any action.
4. Without prejudice to the above undertaking the executant hereby binds itself to pay to KNDA to the full extent any amount which KNDA may be required to pay to any

person in connection with, relating to or concerning the sanctioning of the basement or the making thereof.

5. The owner agrees and undertakes that this bond shall remain in full force and effect till the executant faithfully observes/performs the undertaking herein before contained.

In witness whereof the executant above named has signed this bond on this_____ day of_____ at_____

Indemnifier

Witness:

(Signatures)_____

1. Name_____

Full Address_____

(Signatures)

2. Name_____

Full Address_____

(Signatures)

**Sd/-
(Abdul Alim Khan)**

**Secretary
Kalinga Nagar Development Authority
Jajpur Rord, Jajpur**

