# .LHARKHAND BUILDING BYE-LAWS 2016

Government of Jharkhand Urban Development and Housing Department Jharkhand Building Bye-laws 2016 Government of Jharkhand Urban Development & Housing Department NOTIFICATION 2 P06 No.-7 / 2013 In exercise of the powers conferred under Section-434 of the Jharkhand Municipal Act 2011 and in supersession and modification of all the existing rules on the subject, the Government of Jharkhand do hereby notify the Jharkhand Building Bye Laws, 2016,which shall be enforceable to all the Regional Development Authorities, Urban Local Bodies, Mineral Area Development Authority and all Industrial Area Development Authorities in the manner prescribed in these Bye Laws. By the order of the Gove nor of Jharkhand (Ar n Kamar Singh) Principal Secretary to Government Urban Development & Housing Department 2 cc6 0904-2016 Memo No.-7 / 102/ 2013 Ranchi, Dated---- Copy to :- Superintendent, Govt. Press, Doranda, Ranchi for information and necessary action. It is requested to publish this notification in the extra ordinary Gazette and provide 100 copies of the same to the undersigned/Nodal Officer, E-Gazette, Urban Development & Housing Department, Government of Jharkhand for information and necessary action. Principal S cre ary to Government O < -04 Memo Ranchi, Dated Copy to :- P.S to Hon'ble Departmental Minister/OSD to Chief Secretary, Jharkhand/All Additional Chief Secretary/Principal Secretary/ Secretary, Govt. of Jharkhand/All Divisional Commissioners, Jharkhand/Director, SUDA/Director DMA/VC, RRDA, Ranchi/All Deputy Commissioners, Jharkhand/Municipal Commissioners, All Municipal Corporations/Managing Directors all Industrial Area Development Authorities/MD, MADA, Dhanbad/Special Officer, Executive Officer, All Urban Local Bodies, Jharkhand for information and necessary tion. Principal Se eta y to Government Page No. 2. Y 4. 5, 21-25 6, 25-29 7. 29-30 8. 30-31 9. 32-34 34-37 IO, IL 12. 13 140 15, 16. 17. 18. 19. 20, 21, 22, 23. 24. 25. 26. 27, INDEX Chapter — 1 Definition Short title, Extent and Commencement Definition Chapter — 11 Administration Applicability Deemed Permission Application Application for Building Permit Certificate/Clearances Singing the Plan Fees Permission Duration of Permission Information at the site of Construction Period report of Construction Inspection Third Party Certification Accreditation and gradation of Architect/Engineers Cancellation Completion of Construction Certificate for Occupancy Construction not according to Plan Single Window Clearance Construction near Important Buildings Construction near river front Unsafe building Demolition of Building Application Responsibility of Duty of the Owner/Builder/Applicant Responsibility of Authority 2-20 21 21 37 37 37 38 38-39 39 39—40 40-41 41-43 43 44 44 45 45-46 46 46-47 47 28, 29. 30. 31, 32. 33. 34, 35, 36, 37. 59-61 38, 61 —64 39. 64-65 40. 65-69 41. 69-71 42. 72-76 43. 76-77 44. 45. 46. 47. 48. 49. 50. 51. 52. 53. 54. 55. 56

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These byelaws shall apply to all building activities in the area falling in; 1. ii. iii, iv. All Regional Development Authorities. All Urban Local Bodies. Mineral Area Development Authority. All Industrial Area Development Authorities. The State Government may notify certain areas on its own or on the recommendation of Development Authorities/Municipalities/ULBs where these byelaws shall not apply. The State Government may notify any area on its own or on the recommendation of Development Authorities/Municipalities/ULBs where these byelaws shall apply. All existing rules, regulations, byelaws, orders that are in conflict or inconsistent with these bye laws shall stand modified to the extent of the provision of these bye laws. In case Master Plan/Development Plans/Zonal Plans are notified by the authority subsequent to the publication of these bye laws, the corresponding provisions made in the master plan/development plans/ zonal plans shall override the provisions made in these bye laws. These bye laws shall come into force on the date of its Notification. Definitions 2.1 2.2 2.3 In these bye laws, unless the context otherwise requires: "Act" means the JRDA Act 2002 (Adopted), Jharkhand Municipal Act, 2011 & Mineral Area Development Authority Act 2001, Ranchi Regional Development Authority Act 2001 & Jharkhand Industrial Area Development Authority Act 2001. 6'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 Jharkhand Building Bye-Laws-2016 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; "Affordable Housing" 2.4 2.5 2.6 2.7 2.8 (a) (b) (c) (d) "Affordable Housing Project" shall mean housing projects where 35% of the houses are constructed for EWS/LIG category. "Affordable Housing Units" shall mean dwelling units for EWS and LIG households only. Economically Weaker Section (E W S): EWS households are defined as households having an annual income up to Rs.3,00,000 (Rupees Three Lakhs) or State shall have the flexibility to re-define the annual income criteria as per local conditions in consultation with the Centre. EWS House: An all weather single unit or a unit in a multi- storied super structure having carpet area of up to 30sqm. with adequate basic civic services and infrastructure services like toilet, water, electricity etc. "Agricultural use" means use of land for the purpose of agriculture, horticulture, sericulture, animal husbandry, poultry farming, plant nursery, piggcry, dairy farming, vcgctablc farming and any activity related to agriculture or milk chilling plant; "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; "Air Port Reference Point" means a designated point, which is established in the horizontal plain at or near the geometric center of the landing area as defined by the concerned airport authority; "Amenity" means roads, street, open spaces, parks, recreational grounds, play grounds, gardens, water supply, electric supply, street lighting, sewerage, drainage, public works and other utilities, services and convqniences; -2- 2.9 2.10 2.11 2.12 2.13 2, 14 2.15 Jharkhand Building Bye-Laws-2() 16 "Annexure" means an Annexure appended to these bye laws; "Apartment (Flat)" means a part of the property, provided by the promoter/developer in a multi-storied building including one or more rooms or enclosed spaces located on one or more floors or any part for residential or for the practice of any profession or for the carrying on of any occupation, trade or for business or such other type of independent uses as may be prescribed, and with a direct exit to a public street, road or highway or to a Common area or room (whether or not adjacent to the multi-storied building

in which such Apartment is located) provided by the promoter for use by the owner of such Apartment for parking any vehicle or as the case may be for the residence of any domestic aide employed in such an Apartment. "Addition/Alteration" means 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 load bearing/ wall/ partition/ column, beam, joist, floor or other support etc. excluding opening and closing of a window or door or ventilator providing intercommunicating doors or providing partitions, "Applicant" means the person who is the owner of the land or building or has title to a land lease or building and includes: A. B. C. D. A trustee who is entrusted with or is concerned with any building. Approved by the Authority having jurisdiction. 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. A mortgagee in possession; A builder or developer engaged by the owner. "Authority" means Ranchi Regional Development Authority/Urban Local Bodies (ULB)/Mineral Area Development Authority, Industrial Area Development Authority. "Balcony" means a Horizontal projection to serve as passage or sit out place including parapet; "Barsati" means a covered space of the roof used as a shelter during rain. It will have at lea one •de open and will not cover more than -3- 2.16 2.17 2.18 2.19 Jharkhand Building Bye-Laws-2() 16 20% of thc area of the roof and in no case such covered area will not exceed more than 20sqm. Barsati shall be a common area of the building and shall not be sold out as a separate unit. In case construction is made in violation of the norms mentioned the barsati shall be treated and accounted for as a separate floor under these byelaws. "Basement or cellar" means part of building below or partly below the ground level. "Builder" means an applicant, land owner, contractor, holder of power of attorney of the land owner, partnership, trust or company which has responsibility for construction, leasing, selling or disposing otherwise of a building for residential and other purposes and duly registered by the Authority. "Board" means a Board constituted by the State Government/ Authority/ULBs. "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 including boundary wall whether in actual use or not, and in particular. The building shall be classified as below: 2.19. l. 2.19. 2 "Assembly Building" refers to a building or part of a building where group of people congregate or gather for amusement, recreation, social, religious, patriotic and similar purposes and includes theaters, assembly halls, auditoria, exhibition halls, museum, skating rink, gymnasium, dance hall, clubrooms recreation places and stadia; "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 incidcntal to the sale of merchandise and includes Cinema Halls, Petrol Pumps, -4- Jharkhand Building Bye-Laws-2()16 Hotels, Restaurants, Clinics, Pathology Labs, Homes, Lodge-cum-guesthouses & Dharm Hospitals, Dispensaries etc.; "Educational Building" refers to a building Nursing Kantas, used for 2.19. 3 2.19.4 2.19. 5 2.19. 6 2.19. 7 school, college, or daycare purpose for more than 8 hours per week involving assembly, instructions, education or recreation; "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; "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; "Institutional Building" refers to a building or part of a building which is used for purposes such as Research and Training Centre, Public/Semi Public offices, Mental Health Care Center and Hospitals with teaching facilities; refers to any building or part of a "Mercantile Buildings" building which is used as shops, stores, market, for display and sale of merchandise, either wholesale or retail, office, stores, and service facili ies incidental to the sale of -5- 2.19. 8 2.19. 9 2.19. IO 2.19

**11. Jharkhand Building Bye-Laws-2()16 merchandise and located in the same building shall be included under this group; "Rcsidcntial 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; "Public Utility Building" means and includes Post Office, Police Station, Fire Station, Hospital, Dispensary, Health Centre, and Telephone Exchange, sub-station, water works, Taxi Stands, Bus Terminals, etc.**, "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; "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; 2.20 2.21 "Accessory Building" 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 help quarters, etc; "Building Ileight" means the vertical distance measured, in the case of flat roofs, from the average level of the centre line of the adjoining street or plinth subject to limit of 0.90m. from the existing average level of the Centre line of the adjoining street to the highest point of the building wall adjacent to the street and in case of pitched roofs, up to the point where the external surface of the outer wall intersects the finished surface of the sloping roofs, and in the case of gables facing the road the mid point between the eaves level and ridge. Architectural features serving no other function except that of decoration shall be excluded for the purpose of measuring heights of the building. -6- 2.22 2.23 2.24 2.25 2.26 2.27 2.28 2.29 Jharkhand Building Bye-Laws-2()16 In case the contiguous ground level of the building is above the average level of the centre line of the adjoining street, the height of the building shall be measured from such contiguous ground level or plinth level, subject to limit of 0.90 m, from the existing average level of the centre line of the adjoining street. In case of basement, the height of the building shall be measured from the top level of the basement slab not exceeding 1.20m. from the existing average level of the centre line of the adjoining street. "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 development plan in operation for any area under the jurisdiction of the Authority or specification indicated in any Planning or Development Scheme, or in these Bye Laws; "Built up Area" means the total covered areas on all floors of an immovable property; "Canopy" means cantilevered projection over any entrance; "Carpet area" means the covered area of the usable rooms of an apartment unit at any floor (excluding the area covered by walls, columns and partitions; "Cornice" means a sloping or horizontal structural overhang usually provided over openings or external walls to provide protection from sun and rain; or for architectural consideration; "Chajja/Sun-Shade" means a sloping or horizontal structural overhang, usually provided at lintel level for protection from sun and rain or for architectural considerations; "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; "Combustible materials" means a material, which bums or adds to a fire when used for combustibility in accordance with good practice; 2.30 2.31 2.32 2.33 2.34 2.35 Jharkhand Building Bye-Laws-2016 "Competent Authority" shall mean the Authority Notified by the Govt. of Jharkhand Urban Development & Housing Department. It shall be the VC of RRDA/MD of MADA/MD of AIDA & MC/EO of the respective municipalities/ULBs; "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; "Corner plot" means a plot at the junctions of and fronting on two or more intersecting streets the frontage could be on the street having larger width. In cases, where the two streets are of same width, then the larger side of the plot will decide the frontage. In such case, the location of a garage (on a corner plot) if provided, within the open space shall be located diagonally opposite the point intersection; "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 a building; "Coverage" means percentage of covered area on the ground floor which is not open to sky excluding the chajja/roof/balcony projections up to 0.75 meter width overhanging the open space to the total plot area; "Covered Arca" 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: 2.35. I 2.35.2 2.35.3 rainwater Gardens, rockery,

well and well-structures, 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; Drainage culvert conduit, catch-pit, gully pit, inspection chamber, gutter and the like; Compound wall, Porch and Portico without any construction over it, gate, slide/swing door, canopy, and areas covered by chajjas or similar projections steps leading to the plinth not higher than 0.9m; -8- 2.3504 Jharkhand Building Bye-Laws-2()16 Watchmen booths, pump houses, garbage shafts, electric cabins or substations, and such other utility structure meant for the services of the building under construction; 2.36 2.37 2.38 2.39 2.40 2.41 2.42 2.43 "Cul-de-sac" means such dead end means of access with an additional turning space not less than 81 square meters in area having no dimension less than 9 m., "Damp-Proof Course" means course consisting of some appropriate water proofing material provided to prevent penetration of dampness; "Detached building" means a building whose walls and roof are independent of any other building with open spaces on all sides; "Development" means carrying out of building, engineering, mining or other operations in, or over, or under land or water, or in the use of any building or land, and includes redevelopment and layout an subdivision of any land; and to develop shall be construed accordingly; "Department" means an Urban Development and Housing Department, Govt. of Jharkhand', 2.40. I "Development Authority" means an authority as defined by the Jharkhand Regional Development Jharkhand Industrial Area Authority Act-2001, Development Authority Act-2001 and MADA; "Development Plan/Comprehensive Development Plan" includes any development plan either interim or comprehensive or zonal plan in operation for the area under the jurisdiction of the Authority; "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. "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 conveyi g surface water; 2.45 2.46 2.47 2.48 2.49 2.50 2.51 2.52 2.53 2.54 2.55 2.56 Jharkhand Building Bye-Laws-2016 "Drainage" means the removal of any liquid by a system constructed for this purpose; "Dwelling Unit" means an independent housing unit with facil!ties for living, cooking and sanitary requirements; "E WS Ilousc" means a house/flat or dwelling unit intended for Economically Weaker Sections with maximum carpet area of 30sqm. or as decided by the State Government; "EWS Plot" means a residential plot intended for Econ6mically Weaker Sections having maximum plot area of 48sqm. or as Oecided by the State Government; "Encroachment" means an act to enter into the possession or rights either of permanent or temporary nature on a land or buildup property of local body or state/central Government; "Existing Use" means use of a building or structure existing authorized with the approval of the Authority before the commencement of these Bye laws; "Enclosed stair-case" means a stair-case, separated by fire resistant walls from the rest of the building; "Existing Building or Use" means a building, structure or its use as sanctioned/approved/regularized by the Competent Authority, existing before the commencement of these Bye laws; "Exit" means a passage, channel or means of egress from any building, storey or floor arca to a street or other open space of safety; "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 ofa building; "Farm Ilouse" means a plot of land including construction thereon in the area designated for agricultural use by the Authority. "Farm Shed" shall include permanent or temporary structures erected in the plot used for farmhouse; "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, -10- 2.57 2.58 2.59 2.60 2.61 2.62 2.63 2.64 2.65 2.66 2.67 2.68 2.69 2.70 2.71 Jharkhand Building Bye-Laws-2016 This device may be work automatically or manually to alert the occupants in the event of fire; lore Lift" means lift specially designed for use by fire service personnel in the event of fire; "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; "Fire Resisting Material" means the material, which is normally used for fire resistance; "Flat" means a dwelling unit in building. "Floor" means the lower surface in a storey on which one normally walks in a building; "Floor Area" means accessible covered area of a building on any floor. "Floor Area Ratio (FAR)" means the quotient obtained by dividing the total

covered area on all floors with the area of the plot; "Footing" means the part of a structure, which is in direct contact with the ground and transmitting loads to the ground; "Forms" means forms appended to these bye laws "Foundation" means that part of a structure, which is indirect contact with and meant for transmitting loads to the ground; "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; "Garage-Private" means a building or a portion thereof designed for parking of privately owned motor vehicles or any other vehicles; "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; "Ground Floor" shall mean storey, which has its floor surface nearest to the ground around the building; "Group Ilousing" means the development normally and preferably in two or more multi-storey d blocks shall not be customary sub-division 11- 2.72 2.73 2.74 2.75 2.76 Jharkhand Building Bye-Laws-2016 of land into street and plots. It may be also of low rise buildings in many clusters. "Group Ilousing Schcmc" is reckoned as development of Residential Buildings in a Campus or Site of 3000sqm. and above in area and could be row houses, semi-detached/detached Houses, Apartment blocks or High-Rise buildings or mix or combination of the above. "llabitablc room" means a room having area of not less than 9.5sqm., minimum width of 2.4m. and minimum height of 2.75m. (2.40 m. in case of air conditioned rooms or areas) 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; "llazardous material" 2.74. I 2.74.2 Means material which are highly combustible or explosive and or which may produce poisonous fumes explosive processing or emanations, handling, storage, or manufacturing of which may involve highly corrosive, toxic, obnoxious alkalis or acids or other liquids or radioactive substances; 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; "llazardous 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; "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 Ill, IV and V specified in IS: 1893 and flood prone areas -12- 2.77 2.78 2.79 2.80 2.81 2,82 2.83 2.84 2.85 2.86 Jharkhand Building Bye-Laws-2016 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, baek flow in drains, inadequate drainage, etc. as identified through local surveys in the development plan of the area and landslide prone areas as identified by State Government/ Land surveys; "lleritage Zone" means the area as delineated in Development Plan/ MP/ZDP•, "Illuminated Exit Signs" means a device for indicating the means of escape during normal circumstances and power failure; "Jhamp" means a downward vertical or sloping projection hanging below the balcony to provide protection from direct sun or rain. "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; "Land Use" means use of the land proposed in the Development Plan/ Master Plan/Zonal Plan. Before coming into operation of the Development Plan [Master Plan/Zonal Plan, for the purpose of the application of these bye laws, the authority may designate land use zone with the approval of the Government; "Latrine-connected" means a latrine connected to the municipal sewer system; "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; "Layby" means a place at the side of a road where a vehicle can turn or can stop for a short time without interrupting other traffic, this area Should be in level of the road and suitably paved; "Ledge/"l'and" 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 meter and at a mimmum clear height of 2.1 meters from the floor level; "LIG House" means a house or dwelling unit intended for low income groups with a carpet area of maximum 60sqm. or as specified by the State Government; -13- 2.87 2.88 2.89 2.90 2.91 2.92 2.93 2.94 2.95 Jharkhand Building Bye-Laws-2016 "LIG Plot" means a residential plot intended for low income groups

with a plot area of maximum 60sqm. or as specified by the State Government; "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 meters and which is constructed or adopted for storage purposes only; "Licensed Technical Person" means Architect registered with the Council of Architecture or Civil Engineer/Structural Engineer/ Town Planner/Supervisor licensed by the Authority; "Masonry" means an assemblage of masonry units properly bonded together with mortar; "Master Plan" means any document prepared under the Jharkhand Regional Development Authority Act-2002/Jharkhand Municipal Act-2011 and erstwhile Jharkhand Town Planning and Improvement Trust Act-1951 and any other Ordinance or enactments to be formulated from time to time by the Authorities set up under the provisions of the above enactments or prepared in consistent with any relevant act by Jharkhand State Town and Country Planning Organization for ensuring organized urban development. "Mezzanine Floor" means an intermediate floor between any two floors; "lV1ixed Land Use" means mixed use of the building/prcmises consisting of more than one compatible use of which the principal use shall not be less than 2/3rd of total built up area; "Multi-Storey or Iligh Risc Building" means a building whose height is 16.40 meters or more: but for purpose of fire regulation of any building of 15 metre and above in height shall be considered as Multi Stored building; "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; 2,96 2.97 2.98 2.99 3.0 3.1 3.2 3.3 Jharkhand Building Bye-Laws-2016 "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; "New Area" means such area as notified by the Authority with approval of Urban Development & Housing Department; "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; "Non -Conforming Use of a Building or Land" means the use of a building or land existing at the time of commencement of these Bye laws, and which does not conform to the Bye laws pertaining to the zone in which it is located; "Occupancy or Use" means the principal occupancy for which a building or a part ofa building is used or intended to be used, "Old Area" means such area as notified by the Authority/ULBs with approval of Urban Development & Housing Department. In case of Ranchi area under jurisdiction of Ranchi Municipal Corporation as on Dec, 2015 shall be consider as Old Area and area beyond that shall be deemed to be New Area; "Open Space" means an area

forming an integral part of the plot, left open to the sky; "Owner" means a person, group of persons, a company, trust, Institute, Registered body, State or Central Government and its departments, undertakings and the like in whose name the property stands registered in revenue records. The owner shall include: 3.3, I 3.3.2 3.3.3 3.3.4 An agent or trustee who receives the rent on behalf of the owner; An agent or trustee who receives the rent of or is entrusted with or is concerned with any building devoted to religious or charitable purpose; A receiver, executor or administrator or a manager appointed by any court of competent jurisdiction to have the charge of or to exercise rights of the owners, and A mortgage in possessio -15- 3.4 3.5 3.6 3.7 3.8 3.9 3.10 3.11 3.12 3013 3.14 3.15 3.16 3.17 Jharkhand Building Bye-Laws-2()16 "Parapet" means a low wall or railing built along the edge ofa roof or a floor having a minimum height of I .Om; "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; "Parking Complex/Parking Lot" means premises either built or open which is utilized purely for parking of vehicles permitted in specific areas, "Partition" means an interior non-load bearing wall, one storey or part of a storey in height, "Permit" means a permission or authorization in writing by the Authority to carry out the work regulated by these Byelaws; "Plantation" means plantation of plants and trees; "Plinth" means the portion of a structure between the surface of the surrounding ground and the surface of the floor, immediately above the ground; "Plinth Area" means the built up area measured at the floor level of ground floor; "Porch" means a covered surface supported on pillar or otherwise for the purpose of pedestrian or vehicular approach to a building; "Public Utility service" means drainage, sewerage, electricity, water supply, solid waste disposal, sanitation, fire scrviccs, roads and any other support or infrastructure and the like for which a building has to depend on public bodies, authorities or agencies; "Ramp" means a passage with gradual slope joining two level surfaces; "Real Estate Development" means development undertaken for sale; "Registered Architect" means an Architect registered with the Council of Architecture and who has not been debarred by the Authority; "Registered Builder/l)cvelopcr" means a builder registered with the Authority and who s not been debarred by the Authority; -16- 3.18 3.19 3,20 3.21 3.22 3.23 3.24 3.25 3.26 3.27 Jharkhand Building Bye-Laws-2016 "Registered Engineer" means a engineer empanelled/registered with the Authority and who has not been debarred by the Authority; "Road" means any access vise, highway, street, lane, pathway, alley, or bridge, whether a thoroughfare or not, over which the public have 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; "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 development plan Master Plan/ Zonal Plan or prescribed road lines by any act of law and measured at right angles; Plans under these bye-laws, shall be approved on the basis of width of the road/street that exists on the day of sanctioning of the plans; "Row Ilousing" means a row of contiguous houses with only front, rear and interior open spaces; "Room Ileight" means the vertical distance measured from the finished floor level to the finished ceiling; "Schedule" means a Schedule appended to these bye laws; "Section" means section of the Regional Development Authority Act / Jharkhand Municipal Act-201 1, Jharkhand Area Development Authority Act-2001 and Mineral Area Development Authority Act- 2001; "Sanction Plan" means the set of plans and specifications submitted under the Bye-laws in connection with a building and development of land and duly approved and sanctioned by the authorities/ULBs. "Semi-Detached Building" means building detached on three sides (front, rear and side) with open spaces as specified under the Bye laws. "Set back" means the distance between the plinth lines of the building and the boundary/property line of the plot. The setback shall be measured at ground level. -17- 3.28 3.29 3.30 3.31 3.32 3.33 3.34 3.35 3.36 3.37 3.38 3.39 3 .40 Jharkhand Building Bye-Laws-2016 "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. "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. "Site" means a parcel or piece of land enclosed by definite boundaries. "Site with Double Frontage" means a site having frontage on two streets other than corner plot. "Service Floor" means floor used for services in hotel or commercial building above ground floor in case of more than four storied buildings. "Service Lane" means a lane

provided at rear or side of a plot for service purposes. "Service Road" means a road/lane provided at the front, rear or side of a plot for service purpose. "Site Depth" means horizontal distance between the front and rear side boundaries. "Smoke Stop Door" means a door for preventing or checking the spread of smoke from one area to another. "Stilt floor" means a floor supported by pillars with all sides open to be used for parking, switch room, generator room, society room, information room, cntrancc lobby, guard room and visitors' toilet with minimum clear height of 2.4 meter from floor to ceiling and not less than 2.10m. from the soffit of beams. "Storage Space" means a space where goods of non-hazardous nature are stored and includes cold storage and banking safe vaults. "Storc Room" means a room used as storage. "Spiral Staircase" means a staircase forming continuous winding curve round a central point or axis provided in a open space having tread without risers. "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 -18- 3.42 3.43 3.44 3.45 3.46 3.47 3.48 3.49 3.50 3.51 Jharkhand Building Bye-Laws-2016 the space between any floor and the ceiling next above it, but shall not include a service or mezzanine floor; "Supervisor" means a person having Diploma in Architectural Assistantship Diploma in Civil Engineering/equivalent qualification. "Tenements" means room or rooms in the occupation of, or meant for the occupation of one tenement; "To abut" means to abut on a road so that any portion of the building or land is on the road boundary; "To erect" a building means: 3,45.1 3.45.2 To erect new building on any site whether previously built upon or not; To re-erect any building of which portions above the plinth level have been pulled down or destroyed; "Tribunal" means A Tribunal created under JRDA Act 2002 / Jharkhand Municipal Act 2011. "Unsafe Building" means buildings which are structurally and constructional 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/health/public welfare by reason of inadequate maintenance, dilapidation or abandonment. "Unauthorized Construction" means the erection or re-erection, addition or alternation, which is not approved or sanctioned by the Authority. "Underground/Overhead Tank" means an underground/ overhead water tank, constructed or placed to store water. "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. "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 vapor pressure differences (or both) between inside and outside of e building. -19- 3.52 3.53 3.54 3.55 3.56 Jharkhand Building Bye-Laws-2016 "Water Closet'/ W.C." means a privy with arrangement for flushing the pan with water but does not include a bath room; "Watercourse" means a natural channel or an artificial channel formed by draining or diversion of a natural channel meant for carrying storm and wastewater. "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. Risk based classification of Buildings- Criteria Hazardous Buildin Fly Zone Fire Building Stability (Concrete Buildin ) Type of usage Ili h Risk Storing explosives Medium Risk Not so and inflammable Above 30 meters Less than 30 meters in any place and and within funnel within funnel zone of Airport zone of Air ort. Ground Coverage Ground coverage of of more than 500 more than 300 sqm. sqm. on any floor on any floor of of building and building or more and than 15 more 11 meters height meters height More than 60 year 50-70 years Low Risk Not so Outside funnel zone of Airport of age of building close assembly Open building buildin assembly None Less years Non than 50 assembly buildin There are four categories inspections have been mentioned in Bye- laws. These four categories inspections have been linked to risk category of building. The following tables have exhibited the relationship between inspection category and risk category of building Risk Cate or of Buildin Name of Inspection Ins ection Third Part ins ection cum certification Joint Inspection Sur rise Inspection Low Mandator O tional O tional Medium Mandator Mandate Mandate O tional Mandator Mandator Mandatory O tional As per above table, inspections is compulsory for all categories of Note:- buildings. Joint inspection and third party inspection-cum-certification are mandatory to medium an high risk category of building. Surprise inspection will be based complain received and observation by concern authority. -20 - 3. 4

**5. Jharkhand Building Bye-Laws-2016 CHAPTER -11 ADMINISTRATION Applicability Subject to the provisions of the Jharkhand Regional Development Authority Act/MADA Act/Jharkhand Municipal Act-2011 and Jharkhand Area Development Authority Act 2001 these bye laws shall apply: 3.**1 3.2 3.3 3.4 3.5 3.6 To the planning, design and construction of building in case of erection ofa building: To all parts of the building whether removed or not, and in case of removal of whole or any part of the building; 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; To the whole building whether existing or new building (except only to that part of the building, which is consistent with these bye laws) in case of alteration ofa building; To all parts of the building affected by the change in case of change of occupancy ofa building; and To use of any land or building where sub-division of land is undertaken or use of land or building is changed; Deemed Permission 4.1 4.2 4.3 The construction of any building in respect of which permission has been issued before coming into force of these bye laws, shall, so far as it is not inconsistent with the provisions of the old bye laws, continue to be validly made and the said permission shall be deemed to have been issued under the corresponding provisions of these bye laws. Where any building has been constructed before the notification of these byelaws with deviation of an approved plan, the provisions of old byelaws shall be insisted upon. Where any building has been constructed without an approved plan, the provisions of these byelaws shall be insisted upon. Application 5.1 Any person who intends to develop land, erect, re-erect or make additions or alterations in ny building, demolish any building or -21- 5.2 Jharkhand Building Bye-Laws-2016 subdivide a plot for development shall apply to the Competent Authority. The Competent Authority may prescribe separate formats for different categories of buildings and group housing and land development. Colouring of plans- Plans shall be shown as specified in Table l. Where items of work are notified, the coloring notation used shall be indexed. Table 1: Coloring notation of the plans Sl. 1 2 3 4 5 6 7 8 9 10 Item 2 Plot Line Existing Street Future Street Permissible Building Open Spaces Existing outline Work Proposed to be demolished Proposed work- (a) Additions and alterations (b) Entirely new work Drainage and sewerage work Water Supply work Site Plan Blue Print 4 Thick Black Green Green dotted Thick dotted black No Colour White Yellow hatched Red Not to be coloured Red dotted Black dotted thin Buildin Plan Computer Print/ White Print 3 Thick Black Green Green dotted Thick dotted black No Colour Black Yellow hatched Red filled Not to be coloured Red dotted Black dotted thin Ammonia Print 5 Thick Black Green Green dotted Thick dotted black No Colour Blue Yellow hatched Red Not to be coloured Red dotted Black dotted thin Computer Print/ Whitc Print 6 Thick Black Green dotted Thick No Colour Black Yellow hatched Red Not to be coloured Red dotted Black dotted thin Blue Print 7 Thick Black Thick Colour White Yellow hatched Red Not to be coloured Red dotted Black dotted thin Ammonia Print 8 Thick Black Thick Colour Black Yellow hatched Red Not to be coloured Red dotted Black dotted thin 5.3 Application for development permit-The application shall be made to the Competent Authority in

Form-I. The following shall accompany the application for development permit in the case of development or re-devel opment of land into plots, sub-divisions or land use zones. The -22 - Jharkhand Building Bye-Laws-2016 documents shall be submitted in 4 copies along with a soft copy in PDF and CAD format, 5.3.1 5.3.2 Key Plan- This shall show the location of land proposed to be subdivided. This shall also show the North point and scale used, Site Plan- This shall be drawn on a scale of not less than l: 1000 for plots up to 10 hectares and not less than 1:2000 for plots above 10 hectares and shall show- 5.3.2.1 5.3.2.2 5.3.2.3 5.3.2.4 The boundaries of the site with dimensions and the details of contiguous land belonging to application indicating the kheasra numbers or any other equivalent local denomination, and in case, the continuous land owned by the applicant had been subdivided earlier, public facilities provided in it and all streets within it opening out in the site for which the permission is being sought. The means of access for existing street (name and width of the street is to be mentioned) to the land, which, the applicant intends to sub- divide. The position of all existing structures and features like high tension line, telegraph and electrical poles, underground pipe lines, trees, grave yards, religious buildings, railway lines, etc. within a distance of 30 meters from the nearest edge of the site. All major physical characteristics of land proposed to be developed which include the approximate location and size of water body, normal flood-affected areas and contours at an interval of 0.5 meters in case of the site which has a slope of more than I in 20. - 23 - Jharkhand Building Bye-Laws-2016 5.3.2.5 5.3.2.6 5.3.2.7 Location of the site in Master Plan/Zonal Development Plan or in zoning as specified by the authority. Copies of Master Plan/Zonal Development Plan shall be supplied by the Authority on Payment. The Master Plan/Zonal Plan shall also be made available on the Web Site of the Authority which could be downloaded by the applicant for use. Present and proposed use of land. Scale used and north point. 5.3.3 Sub-division layout Plan- This shall be drawn on a scale of not less than 1:500 for Plot upto 10 hectares and not less than l: 1000 for plots above IO hectares. This shall apply to plans for integrated development schemes also. This shall contain the following- 5.3.3.1 5.3.3.2 5.3.3.3 5.3.3.4 5.3.3.5 5.3.3.6 5.3.3.7 Scale used and north point, The location of all proposed and existing roads with their widths within the land, Building lines showing the set backs with dimensions within each plot where applicable, The location of drains, sewers, public facilities and services and electrical lines etc. and their connctions to existing public utility serviccs system, An analysis indicating, size, area and use of all the plots in the subdivision lay out plan, A statement indicating the total area of the site area utilized under roads, open spaces, schools, shopping and other public places along with their percentage with reference to the total area of the site proposed to be subdivided, In case of plots which are subdivided in built up areas in addition to the means of access to the subdivision from existing streets and the exiting service lines laid. — 24 — 5.3.4 Jharkhand Building Bye-Laws-2016 Specification- Every application for permission of sub- division of land shall also be accompanied by the following statements- 5.3.4.1 5.3.4.2 5.3.4.4 A statement containing general specification of all improvements proposed to be made within the area for example, grading and paving of roads and lanes, provision of gutters, side drains, provision of sufficient, safe and assured water supply, arrangement of sewage disposal, street lighting and development of parks and playfields and public utilities, The purpose for which the land is to be used and a written analysis of distribution of land under different uses, General specifications of the materials to be used; The quality and quantity of effluent in respect of industrial units. Any other statement required by the Authority. Ownership title- Every application for development permit shall be accompanied by the following for verifying proof of ownership- 5.4.1 5.4.2 Self Attested copy of the original sale/lease deed, and Self Attested copy of the revenue receipt (Malguzari receipt) Municipal Holding Tax receipt with khesra/holding No., Khatiyan or mutation records, In case of mutual partition deeds (un-registered) "DAKHAL KABJA" along with malguzari receipt is essential or, Affidavit or other documents acceptable to the authority

**Form-ll.**The following shall accompany the application for building permit in the case of permission for erection, re-erection of making material alternation of Post- Facto approval of the existing building. The documents shall be submitted in 4 copies along with a soft copy in PDF and CAD format. -25 - 6.1 Jharkhand Building Bye-Laws-2016 Site Plan- Plan set with an application shall be drawn to a scale of not less than 1:500 for areas up to hectares and not less than l: 1000 for areas more than I hectare and shall show- 6.1.1 6.1.2 6.103 6.1.5 6.1.6 6.1.7 6.108 6.1.9 The boundary of the site with the contiguous land around it. The position of site in relation to neighboring street along with the municipal plot number and revenue plot number the name of the street in which the building is proposed to be situated, if any; The name of street in which the building is proposed to be situated if any; All existing buildings standing on over or under the site; The position of the building or of all other building (if any) which the application intents to erect upon his contiguous land to in relation to: 6.1.5.1 6.1.5.2 6.1.5.3 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 portion owned by the others. All adjacent streets, buildings (with number of the stories) and premises within a distance of 15m of the site of the contiguous land (if any). If there is no street within a distance 15rn of the site, the nearest existing street. The means of access from the Street to the building and all other building which the owner intends to erect upon his contiguous land; Dimension of the spaces to be left in and around the building to secure a free circulation of air, admission of light and access for scavenging purposes and details of projection (if any) on the open spaces; The width of the Street (if any) in front and of any street (if any) at the site of rear of the proposed building; Scale used and the direction of north point relating to plan of the building. - 26 - 6.1.lO 6.1.11 6.1.12 6.1.13 Jharkhand Building Bye-Laws-2016 any existing physical features, such as wells, drains etc. Sewerage and drainage lines up to discharge point and water supply lines. location of trees. such other particulars as may be prescribed by the authority. 6.2 Building Plan- The plan of the building and two elevations (front and side) and two sections accompanying the application shall be drawn to a scale not less than (l: 100). The plan shall- 6.2.1 6.2.2 6.2.3 6,2.4 6.2.5 6.2.6 6.2.7 6.2.8 62.9 6.2.lO 6.2.11 Include the floor plans /mezzanine plan/service floor of all floors together with the covered area clearly indicating the spacing of all framing members and sizes of rooms and the position of staircase, ramps and lift wells; Show the use or occupancy of all parts of the building; Details of the parking spaces with calculations; Show exact location of essential services for example: WC, sink, bath and the like including the water supply and drainage line; Including two elevation (front and sides) and sectional drawing with their materials and size and locations of doors, windows and other openings, The sections shall indicate the heights of building and rooms and also the height of the parapet and the drainage and slope of the roof. At least one section should be taken through the staircase; Show all street elevations (levels), finished ground level; Indicate details of compound walls (including height and sections) around the boundary; Give dimensions of the permissible projected portions within open spaces; Rain water harvesting system, terrace plan indicating the drainage and the slope of the roof; Give indications of the north point relative to the plan and scale used; and Any other particulars as desired by the Authority. -27- 6.3 6.4 6.5 6.6 6.7 6.8 6.9 6.10 6.11 6.12 6.13 6.14 6.15 6.16 6.17 Jharkhand Building Bye-Laws-2016 Services Plan- Plans, elevations and sections of private water supply and sewerage disposal system independent of the municipal services (if any) drawn to a scale of 1:10 shall be included. Specifications-General specification giving type and grade of materials to be used shall accompany the application. Ownership Title-Every application for building permit shall be accompanied by the following for verifying proof of ownership. 6.5. I 6.5.2 Self Attested copy of the original sale/lease deed, and Self Attested copy of the Revenue Survey sheet/Municipal Survey sheet with Khesra no. or mutation record. Additional documents relating to submission of Building plan for all buildings including Multi storied/Special Buildings which are 15m. or more in height and for special buildings like educational, assembly, institutional, industrial, storage, shopping complex and multiplex and hazardous and mixed occupancies with any of the aforesaid occupancies having ground covered area more than 500 sqm., the following additional information shall be furnished /indicated in the building plan in addition to the items given in chapter-11, section (4) as applicable: Access to fire appliances/vehicles with details of vehicular turning circle and clear motorable access way around the buildings, parking provision plan with arrangement & movement; Size (width) of main and alternative staircases along with balcony approach, corridor, ventilated lobby approach; Location and details of lift enclosures; Location and size of fire lift; Smoke stop lobby/door, where provided; Refuse chutes, refuse chamber, service duct, etc; Vehicular

parking space, parking space for fire brigade and ambulance; Details of how the fire brigade/ ambulance will travel within the plot; Refuse area, if any; Detail of exits including provision of ramps, etc., for hospitals and special risk buildings/uses Location of generator, transformer and switch gear room; - 28 - 6.18 6019 6.20 6.21 6.22 6.23 6.24 6.25 Jharkhand Building Bye-Laws-2016 Location and details of fixed fire protection installations, such as sprinklers, wet risers, hose-reels, drenchers, etc; Location and details of first-aid firefighting equipment/installationse longitudinal cross sections of the building including details of building and room heights and of staircase, Area calculations for plot area, built up area and carpet areas of apartments. Attested Certificate of registration with Council of Architecture for Architects and Degree certificate for Engineers Note: The above sub-section of byelaws as applicable 6. IO, 6.11, 6.12, 6.13, 6.14, 6.15, 6.16, 6.17, 6.18 & 6.19 shall be as per the approval of Fire Service Department. Services plans: 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. Landscape Plan: The landscape plan shall include the area to be developed as lawn, garden, plantation etc, Specifications: Specifications, both general and detailed, giving type and grade of materials to be used duly signed by the registered architect, engineer, structural engineer; Certificates/Clearances 7.1 7.2 7.3 7.4 Self Attested copy of original sale/lease deed, attested copy of the revenue receipt/Municipal Holding Tax receipt/holding number and mutation records. 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, 1982 and Copies of the Agreement/Article of Association/ Memorandum/Bye-laws. No Objection Certificate from the Jharkhand State Housing Board/any Regional Development Authority, for the additional constructions, in case the house/plot is delivered by the Board / Authority. Necessary environmental clearance from the appropriate authority wherever applicable. Refer to provisions laid down in the Environmental Impact Assessment Notification-2006 dated 14 September 2006, amended by subsequent notifications by Ministry of 29 - 7.5 7.6 7.7 7.8 7.9 7.10 Jharkhand Building Bye-Laws-2016 Environment and Forest, Government of India. The Department of Environment and Forest, Government of Jharkhand may also prescribe norms for environment clearance. For all buildings with a height of 15.0 meters and above or covered area at any floor within premises more than 500 sq m, NOC from Fire Service Department shall be obtained. NOC from Airport Authority of India shall be furnished wherever applicable. A certificate from the registered Engineer that the building plan and the design complies with the standard safety including safety against Earthquake is required in prescribed Form-Ill. For buildings above G+2 (maximum 10m height) the registered Engineer shall also supervise the construction ofthe building. For buildings more 15m in height, structural stability certificate in the prescribed Form-IV with Design Basis Report, signed by the engineer/ structural engineer and the owner jointly shall be furnished. Supervision certificate in Form-V shall be furnished by the registered architect/ engineer/structural engineer/ supervisor/ town planner undertaking the supervision. A check list in Form-VI shall be furnished by the empanelled/ registered technical person. 8. l. Signing the Plans.- 8.1 8.2 All the plans shall be prepared and duly signed by a registered/empanelled technical person as specified in Annexure-I (viz. Architect, Engineer, Structural Engineer, Town Planner, Supervisor, Draftsman) and Builder who shall indicate their names, addresses, and registration numbers on the body of the plan and in all other relevant documents. The concerned owner of the land shall also sign the plans. All plans, drawings, statements, design details shall bear the signature of the applicants and shall be duly countersigned by an empanelled Architect/ Technical person. All documents and plans related to structural designs shall bear the full name and full signature of a registered Structural Engineer. Note:- The registered Architect/ Technical Person who has prepared the plan shall put the empanelment number/ Registration No. and seal on all plans and documents signed by him and shall also furnish a certificate to the effect that he shall supervise the construction of the building and shall be responsible for any deviation from the approved plan except if the Owner/Architect/Technical person intimates that their agreement for - 30- 2, 3, Jharkhand Building Bye-Laws-2016 services has been terminated. The constructions shall be stopped immediately until agreement with another architect/technical person is executed and intimated immediately to the authority. Wherever required under these bye-laws, the registered Structural Engineer, who has prepared the structural design, shall put his seal, and address on all the documents signed by him and shall also furnish a certificate to the effect that he shall supervise the structural part of the construction and shall be responsible for any structural failure except caused by unprecedented natural calamities in

Form-W and except if the owner intimates that his services have been terminated. 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, 2005 and any breach' thereof shall be deemed to be a breach of the requirements under these Bye laws, 8.3 8.4 8.5 8.6 8.7 The technical personnel and builder as specified in sub-bye law (l) & (2) above shall have to be registered/ empanelled with the Authority, Their qualifications and, competence shall be as per Annexure-L The application form shall be as per Form-VII (A) & Form-VII (B). No plans for construction of apartment building, group housing and commercial building shall be entertained unless the builder is registered by the Authority in accordance with the competence as specified in the Annexure-I. When it comes to the notice of the Planning Municipalities/ Urban Local Bodies or any other person that a plan signed by technical personnel or builder referred to under, sub-bye law (l) & (2) is sanctioned in violation of the norms of these byelaws he shall bring this to the notice of the Authority, The Authority shall issue a notice asking for, a show cause within fifteen days as to why such technical personnel or builder shall not be disqualified/black listed and legal action taken against him, After receipt of the show cause if any, the matter shall be placed before the Concerned Authority for a decision on such disqualification/ black listing /legal action. The decision of the Concerned Authority on disqualification/black listing shall be published in the notice Board of the Authority. An appeal against an order under sub-clause (6) above all buildings governing through these Bye-laws shall lie with Municipal Building Tribunal constituted under the Jharkhand Municipal Act 2011, -31-

**9. Fees 9.**1 9.2 9.3 Jharkhand Building Bye-Laws-2016 The Authority shall levy the following fees: 9.1. I 9.1.2 9.1.3 9.1 e 4 9.1.5 901.6 Every application for permission for building operation or development shall be accompanied by a building fee as specified in these bye laws. Fees for retention of structures for temporary period shall be as decided by the Authority from time to time. Fees for change of occupancy as decided by the Authority from time to time. Fees for change of land use as decided by the Authority with permission to State Government from time to time. Any other fee decided by the authority with the approval of the Urban Development and Housing Department or concern Department. The concern department may change the fees prescribed in these bye laws through a notification from time to time. Development permit fee.- The scale of fees for development permit shall be as per Table 2. Table 2 : Development permit fees (i) 1 2 3 9.2. I 9.2.2 Area of Plot (ii) u to 1.0 hectare above 1.0 hectare & up to 2.5 hectare above 2.5 hectare & up to 5.0 hectare Nagar Municipal Panchayat Council Rs (iii) 6000 12000 16000 Rs (iv) 8000 15000 20000 Municipal Corporation/RRDA/ MADA/ Rs (v) 10000 20000 30000 For development permit above 5 hectare for every addition of I hectare or part there will be an additional fee ofRs.2000 per hectare. In the case of development permit for non residential use the above fees shall be doubled for different sizes of land Building permit fee The scale of fees for residential building permit shall be as per Table 3.1 & Table 3.2 below - 32 - Jharkhand Building Bye-Laws-2016 Table-3.1 Residential buildings up to 500sqm. permit Fees-Rs. Per sqm. 4 i) 1 2 3 Height of Building (ii) u to 10.0 m more than IO up to 16.4m More than 16.4 m Municipal Nagar Municipal Corporation/ Panchayat Council Development (iii) 10.0 20.0 30.0 (iv) 15,0 25.0 35.0 Authorities/IADA (v 20.0 40.0 50.0 Table-3.2 Residential buildings more than 500sqm. permit Fees-Rs. Per sqm Height of Building Nagar Municipal Panchayat Council i 1 2 3 Note.- upto 10.0 m more than IO up to More than 16.4 m iii) 15.0 25.0 35.0 iv 20.0 35,0 45.0 Municipal Corporation/ Development Authorities/IADA (v 30.0 50,0 60.0 (1) (2) Buildings Minimum fees for residential building shall be Rs. 2000/- Fee at the time of submission of the map will be 50% of the total fee calculated at the time of submission. The final fee will be deposited before issuing the sanctioned Plan, The deposited fees will not be refunded under any circumstances. for Charitable Purpose: In case of Institutional buildings 9.4 9.5 9.6 built for charitable, religious purpose the fees shall be charged at half of the rates prescribed in Table 3.1 &3.2 Non Residential Buildings: In case of buildings other than those mentioned in (i) above to be used for non-residential purpose, the fees charged shall be double of the rates prescribed in Table 3.1 & 3.2 No fees for Central/State Govt. buildings including Government funded buildings, but Semi-Public Sectors/Public Sectors/Any Agency/ Limited Company of the Central Govt./State Govt. shall have to deposit building fees as per prescribed fee structure in Table 3.1 & 3.2 The department may alter various aforementioned fees from time to time as per re irement and circumstances. Yc8 -33 - Jharkhand Building Bye-Laws-2016 The department may exempt various aforementioned fees as case to case basis as per requirement and circumstances. Fixation of fees The fixation of these fees shall

be governed by the following. - 9.7 9.8 9.7. I 9.7.2 9.7.3 9.7.4 9.7.5 9.7.6 For re-erection of existing building, the fees chargeable shall be the same as that for erection of new building. For additions and alterations in the existing building, the fees shall be chargeable on the added portions only, and on the same scale as for a new building. For revision and revalidation of a plan of a building, which the Authority has already sanctioned, the fees chargeable shall be 1/4 of the fees chargeable on the original plan subject to the condition that the covered area of the building has not increased than in the original sanctioned plan. In case of additions and alterations of building, if the use of the building is also changed, then the chargeable fees shall be calculated on the use proposed. In case of basements, for the purpose of calculating the fees the area covered under the basement shall .be counted towards the covered area. In the case of buildings with principal and subsidiary occupancies, in which the fees to be levied are different, and then the fees for the total building scheme shall be calculated as per the rates applicable for respective occupancies. The owner may withdraw his application and plans at any time prior to the sanction and such withdrawal shall terminate all proceedings with respect to such application. The fees paid in such cases shall not be refunded. Infrastructure Development Fees The Authority may also impose an infrastructure development fees with the approval of the Department

**10. Permission 10.**1 No permission or notice shall be required for the works related to the following alterations and the like which do not otherwise violate any provisions regarding general building requirements, structural stability and fire and health safety requirements of the National Building Code-2005: — 34 10.1.1 10.1.2 10.1.3 10.1,6 10.1.7 10.1.8 10.1.9 10,1.10 10.1.11 Jharkhand Building Bye-Laws-2016 Opening and closing ofa window or door or ventilator; Providing intercommunicating doors; Providing or removing partitions; Providing false ceiling; Gardening; White washing; Painting; Re-tiling and reproofing; Plastering and patch work; Re-flooring; and Construction of sunshades on one's own land. 10,2 10.3 10.4 10.5 10.6 Permission shall necessarily be obtained for works to be carried out by Central Government and State Government Departments/Jharkhand State Housing Board. Such permission shall be deemed to be granted / approved after 45 days of submission of such application, provided all mandatory and relevant document submitted by such department, and no objection has been raised by the authority within that period. In case of such Government Projects lying in the area outside of any development plan/scheme, the concerned Government Agency shall ensure to obtain NOC required as per provision of these bye laws and relevant Acts and should submit approval drawing in conformity with these Bye-laws. In all cases completion certificate, signed by the concerned Government Agency, has to be submitted as required in Performa in Annexure-VI after the construction All clarifications with respect to deficiency in the plan, documents will be sought for from the applicant within 30 days. 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 Competent Authority shall scrutinize the re- submitted plan and if there will be further objections, the applicant should be given one more chance to comply with the objections raised within a period of 30 days after which if the final revised plan are not resubmitted the plan shall be rejected The Competent Authority shall communicate either approval in

Form- VIII (A) or refusal in Form-IX within 60 days from date of receipt of application under Bye Law-5 or within 30 days from the compliance of objection raised by the Compet nt Authority. -35 - 10.7 10.8 Jharkhand Building Bye-Laws-2016 For all buildings, occupancy shall only be accorded, once the builder has developed the onsite and offsite infrastructure like connectivity of sewerage, drainage, water supply, road etc. as per the specification of the local Authority and obtain their NOC The basic infrastructure like connectivity of sewerage or septic tank for sewerage treatment, drainage, water supply, road, electrical connection etc. should also be mandatory for all buildings before occupancy certificate is issued, irrespective of height or built up area. The Authority shall establish a single window clearance system to process such NOCs and clearances related to it. A residential building may be constructed by the owner of the land without prior approval of the plan by the Authority if the size of the plot is not more than 300 sq. meters and if all the conditions mentioned below are satisfied: 10.8.1 10.8.2 10.8.3 10.8.4 10.8.5 10.8.6 10.8.7 10.8.8 10.8,9 The applicant shall submit an application to the Authority as prescribed in bye law 5(4) along with a certificate from the registered Engineer/Architect that the building plan and the design complies with the Earthquake Safety. The height is not more than IO meters, The number of floors does not exceed ground plus two floors, No basement is to be constructed, The road, drainage, sewerage and other infrastructure have been developed as per the approved layout plan or provisions for their development has been made in the building plan, A notice in Form-X is submitted to the Authority, with a copy of the plan, documents mentioned at above and the record of rights, statement of compliances made to the objection raised by the Authority (if any) 60 days prior to commencement of construction; and All other conditions of the bye laws are met; The owner shall have to submit completion certificate to the Authority in proforma of Annexure-VL The owner shall remain responsible for any violation of the norms prescribed under the Bye laws. Nothing in this provision will enable the owner to violate any of the provisions of the Bye laws. The registered architects/ engineers/town planners and other technical personnel shall - 36 - Jharkhand Building Bye-Laws-2016 also be responsible for any violation of norms prescribe under the bye-laws. 10.9 A sanctioned letter will be given by the authority stating that submitted plan may be considered as sanctioned for the purpose of Housing Loan. 10.10 In case the permission is refused an appeal shall be filed before the Tribunal. Duration of Permission 11. 12. 13. 11.1 11.2 Every permission granted under these bye laws shall remain valid up to three years from the date such permission is granted for buildings more than 10,000 sqm. built up area the validity duration will be of 5 years. The completion certificate shall have to be submitted within this period. However, in case of failure to submit the completion certificate within the prescribed period, the permission shall have to be revalidated before the expiry of the above period on payment of such fee as may be prescribed by the authority and such revalidation shall be valid for another two years, If the building/development works is not completed within the above mentioned stipulated period, the applicant shall make a fresh application for approval of building plan, Information at the site of construction 12.1 12.2 Whereas tests of any material are made to ensure conformity of the requirements of these bye laws, 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, 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 copy of approved drawings and specifications; Periodic report of Construction In case of high rise buildings the builder/ owner/ applicant shall submit 13.1 a periodic progress report after plinth level, each roof slab casting in Form-Xl to the authority. The process of submission of such reports shall be made easy through an online process. The authority has to make site inspection within 15 days from the date of application and if the construction is found as per bye laws the authority will issue a go ahead certificate to the applicant within IO days of inspection. 37 - Jharkhand Building Bye-Laws-2016 Inspection procedure 14 15. 14.1 14.2 14.3 14.4 14.5 14.6 1407 14.8 As a matter of course all construction or work for which a permit is required shall be subject to inspection by the Authority at all reasonable hours with prior intimation. Inspection, where required, shall be made within 15 days following the receipt of periodic report of construction in Form-XL At the first inspection, the Authority shall determine that the building construction has been taken up in accordance with approved plans. A copy of the inspection report shall also be made available to the builder/developer. Inspection report shall be submitted. Joint inspection will be done by concerned ULB's Authority, Fire Service Department, Airport Authority and Environment authority as and when required. Applicant applies individual NOC to respective department for availing NOC through carry out joint

inspection at least time. The relevant authorities will intimate the date and time to inspect and inform the same to applicant to present at site on specified date and time. A team of authorities shall jointly come and inspect and issue NOC certificates to applicant after inspection Surprise inspection on the basic of complaint or otherwise only be done by the prior permission of EO/Special Officer/MC/MD/VC of ULBs/Authorities. JE/Inspector site inspection report will be submitted/uploaded within in 48 hours after inspection. Such establishment or proposal comes under high risk building classification as per bye-laws specified inspection mentioned in section-3.55 is mandatory and will be conducted by concern authority. Such establishment or proposal comes under moderate risk building classification as per Bye-laws, specified inspection mentioned in section 3.55 is not mandatory and will be conducted by concern authority based on their observation. Such establishment or proposal comes under low risk building classification as per Bye-laws, specified inspection mentioned in section 3.55 is not applicable for this category. Third Party certification 15.1 Accredited architects/engineers may be authorized to do inspection as third party inspection of any building under construction or completed, by the head of the authority. - 38 - 15,2 15.3 Jharkhand Building Bye-Laws-2016 Such accredited architects/engineers shall not be anyway associated to the project concerned. They shall issue certificate regarding construction quality/structural safety norms as well as construction is going on or completed as per sanctioned drawing. Structural safety checklist shall be provided in Annexure-IX and construction quality checklist/testing shall be provided in Annexure-X 16

**17. Accreditation and gradation of Architects/Engineers 15.**1 16.2 16,3 16.4 16.5 The accreditation of architects/engineers shall be done by the authority on the basis of their professional experience. The person concerned should have minimum experience of 5 years as registered architect/ engineers/technical person in any ULBs/Authorities. The concerned person shall produce certificate of the required experience. The authority shall publish grading of professionals as on basis of their experience as follows:- 16.3.1 Architect:- Grade c 16.3.2 Engineer:- Grade c Minimum Experience IO Yrs and above More than 8 Yrs Minimum 3 Yrs Minimum Experience IO Yrs with PG and above More than 8 Yrs Minimum 3 Yrs Work Assigned Any work Up to 16,4 meter height Up to IO meter height Work Assigned Any work Up to 16.4 meter height Up to IO meter height They should not be blacklisted on any authority, they should have minimum qualification in as per Annexure-I. The authority shall issue the details procedure of accreditation of registered architect/engineers and technical personnel complying with rules and regulation. Cancellation 17.1 If any time after permission to proceed with any building or development work has been given, the Authority is satisfied that such permission was granted in consequence of any material misrepresentation or fraudulent statement contained in the application given or information furnished, the. Authority may cancel such -39 -

**18. Jharkhand Building Bye-Laws-2016 permission and any work done thereafter shall be deemed to have been done without permission.**Completion of Construction 18.1 18.2 18.3 18.4 The applicant/builder/owner/registered architect/registered engineer shall certify the completion of all building designed by Architect/ Engineer. The responsibility of compliance with respect to provisions of these Bye-laws shall rest entirely on applicant/builder/owner For all buildings including mentioned in 18.1 above, the applicant will submit the notice of completion in Annexure-VI to the Authority that the building has been completed in all respects as per the approved plan and provision of the Bye-laws. The said notice shall be accompanied by the following documents: 18.2. I 1802.2 18.2.3 18.2.4 18.2.5 18.2.6 18.2.7 Three copies of as built building plans. A fee of Rs. 1000/-. Copy of approved plan and approval letter as or case may be approval letter. Certificate of installation of fire safety appliances by the nominated authority/agency wherever applicable. Evidence to the effect of all public utility services, and in particular, sewerage, drainage, water supply, and electricity have been linked to the main public utility system. A certificate obtained from concern structural Engineer certifying the structural safety and stability of the building. A certificate from concern architect that the building has been constructed as per the provision of these bye-laws. The deviations, if any, shall also be brought to the notice of the Authority (with relevant documents) The team of officials shall visit the site within 15 days after receiving of Completion Certificate in proper manner and occupancy certificate shall be given. The team will verify the following facts 18.4. I 18.4.2 18.4.3 18.4.5 18.4.6 Number of floors Building height External Setbacks Building Line, if any Parking space provision Abutting road width - 40 - 18.4.7 18.4.8 18.4,9 18.4. IO 18.4.12 18.4.13 18.4.14 18,4.15 18.4.16 18.4.17 18.4.18 18.4.19 18.4.20 18.4.21 Jharkhand Building Bye-Laws-2016 FAR Coverage

percentage Tree Cover Water harvesting structures Land if required to be surrendered. Lifts, water pumps and storage tanks, Internal roads/paving Parking areas and external lighting Lightening arrestors Fire Fighting installations Lifts Water pump Drainage and arrangement for waste water and sewerage disposal Copy of agreement with the apartment Owner's Association/ Society if any, The team shall record and report to the Authority the deviations made from the approved plan. 18.5 18.6 Implementation of Life Safety provisions as mentioned in National Building Code 2005 (Group-I Part-W Fire and Life Safety-4) shall be complied and NOC from Fire Service Department obtained where ever applicable, Quality checklist for building works shall be provided as per Annexure-X

**19. Certificate for occupancy 19.**1 19.2 The Authority shall issue a certificate for occupancy for all category of buildings, or for part of a building during its construction, or whole of the building after construction in Performa as Annexed as Annexure - VII or refuse occupancy, as the case may be, within 30 days from the date of application. If the Occupancy Certificate is not issued within time limit mentioned above, the applicant shall submit an application with an affidavit that the construction is strictly as per the approved plans and no dues in development charges or any other form of payment to be made to the Authority are pending and all the conditions for issuing of occupancy permission are complied with. - 41 - 19.3 19.4 19.5 19.6 19.7 19.8 19.9 Jharkhand Building Bye-Laws-2016 In case of non-disposal of such application within 15 days, it will be deemed to have been granted. In case of any false statement the applicant shall be liable for punishment under the provisions of these Bye Laws and other suitable legal action. Temporary occupancy-upon the request of the applicant the Authority may issue a temporary occupancy certificate of occupancy for a building or a part thereof before ethe entire work covered by the building permit has been completed, provided such portion or portions may be occupied safely prior to full completion of building without endangering life or public welfare. The refusal for granting occupancy certificate shall be a speaking order clearly mentioning the reason for refusal. Before issuing occupancy certificate, the competent authority shall verify that the building complies with the provisions of life safety as mentioned in National Building Code 2005(Group-l Part-IV Fire and Life Safety-4) and barrier free accessibility wherever applicable. The department/line agencies dealing with electric power, water supply, drainage and sewerage shall not give connections to building unless such occupancy certificate is produced. Any violation by the department/ Authority/Agencies in this regard shall be treated as an offence under the Jharkhand Municipal Act, 2011 and all relevant Acts. However a temporary connection of water supply and electricity for the purposes of construction can be given after the approval of the Building Plan. The occupancy/certificate shall also state the use/type of occupancy of the building. However, the applicant may apply for change of use/ occupancy permitted within the purview of the Development Plan/Zonal Plan/ Zoning Regulations, where so required. In case of multi storied building and other special building like educational, assembly, institutional, industrial, storage and hazardous and mixed occupancies periodic inspection shall be made by the authority, along with technically competent authorized personnel once in five years or less to ensure the fire safety provisions of the building are in proper order and the building complies with the provision of fire and life safety requirements ('Fire and Life Safety', Part-4 of NBC).In case the building fails to comply with requirement of fire safety and barrier free accessibility, the building shall be declared unsafe All occupied buildings and buildings covered under sub-bye law (4) above shall also be subject to periodic joint physical inspection by a team of multi disciplinary professionals of the Authority. This work - 42 -

**20. Jharkhand Building Bye-Laws-2016 may be out sourced by the Authority as may be deemed necessary, The team shall report compliance of bye-laws, natural lighting, and ventilation, lift besides structural and electrical safety.**If any short comings/ 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 once in five years, 19.10 An appeal against the decision of the Authority shall lie with the respective Tribunal under the relevant Acte 19.11 Grade A Accredited architect may also issue occupancy certificate after being fully satisfied regarding compliance of all provisions of Building Bye-law and others related. Acts 19,12 In case of all the deviations which are within the condonable limits, a temporary conditional certificate of occupancy may be granted by the Authority. Construction not according to plan 20.1 20.2 20.3 20.4 20.5 If the Authority finds at any stage that the construction is not being carried out according to the sanctioned plan or is in violation of any of the provisions of these bye laws, it shall notify the owner giving details of deviation and no further construction shall be allowed until necessary corrections in the plan are made and the corrected plan is approved. In case the deviation is within condonable limits, the construction shall not be stopped. 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 on the premises 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. The notification under sub-bye law (20.2) shall also be published in as public notice and also on the Website. The above-mentioned procedure shall also be followed in case of deviation of the layout. An appeal against an order under sub-bye law (20.2) above shall lie with the tribunal established under Municipal Act or any other tribunal as notified by the department. - 43 - Jharkhand Building Bye-Laws-2016 Single Window Clearance 21. 22 21.1 21.2 21.3 21.4 21.5 21.6 21.7 21.8 21.9 The Planning Authority/Authority shall set up a Single Window Clearance system to process all the NOCs and grant permissions. There shall be a Website through which all the applications/documents /forms shall be filed online. The stages of approval/refusal shall also be communicated through the website. Every applicant seeking NOC and permission unless exempted under these Bye Laws shall apply in the Combined Application form through website. The Combined Application

form duly filled in together with fees to be paid under these Bye Laws shall be submitted in required number of copies along with relevant enclosures, certificates, fees receipts and attachments in the Single Window Cell in the office of the Authority. All applicants shall furnish the form of self certification and also a certificate by Competent Technical Person along with the application at the time of submission of application forms; There shall be a check list appended to the combined application forms which shall be completed and signed by the applicant and scrutinized and accepted by the authorized representative of Single Window Cell in the office of the Competent Authority before issuing the acknowledgment; Before issuing the acknowledgement, the authorized representative of the Single Window Cell in the office of the Authority, shall satisfy that the application is complete in all respect; The relevant parts of the common application form shall be served on the respective authorities within three working days from the date of issuing the acknowledgment; The respective authority shall process the application and communicate the decision to the Nodal Authority within further IO working days; In case of rejections of clearances or approvals with modification by the respective authority, the Nodal Authority shall examine the issues involved, may ask the applicant for such modifications as required by the respective authority for further consideration; Construction near important buildings 22.1 The Authority shall take rational view in sanctioning plan near important building like Governor's House, High Court, Heritage building etc. - 44 - Jharkhand Building Bye-Laws-2016 Construction near river front 23. 24. 23.1 23.2 23.3 23.4 No construction or re-construction of any building, within a river boundary, or such other higher distance as may be prescribed from time to time by the State Government, from the outer boundary of the river of Ganges (as prescribed by the Irrigation Department), shall be permitted except for repair and renovation work of heritage buildings. In case of rivers other than the Ganges, no construction or re- construction of any building shall be allowed,' within a strip of land of 10-15 metres (where area is open and not develop 15m. up to), or such distances as prescribed by the State Government, from the outer boundary of the riverfront of any river (as prescribed by the Irrigation Department). The State Government shall notify a list of such rivers, No construction shall be allowed within the boundary of the river. Notwithstanding the above provision, any Planning Authority or Government Body shall be able to undertake development and beautification work of riverfront, ghats or any other planned development on reclaimed lands with the approval of the Government. Unsafe building 24.1 24.2 24.3 24.4 24.5 All unsafe buildings shall be considered to constitute danger to public safety and shall be restored by repairs or demolished or dealt with otherwise as directed by the Authority, The Authority shall examine or cause to be examined every building reported to be unsafe or damaged and shall make a written record of such examination, Whenever the Authority finds any building or portion thereof to be unsafe, it shall in accordance with established procedure for legal notice, give to the owner or occupier of such building written notices stating the defects thereof this notice shall require the owner or the occupier within a stated time either to complete specified repairs or improvements or to demolish, and remove the building or portion thereof as per provision of Act. The Authority may recording the reasons thereof directing in writing that the building which in its opinion is dangerous, or has no provision for exit in the event of fire, shall be vacated immediately or within the period specified for the purpose. If any person does not comply with the orders of vacating a building, the Authority may with the help of police remove the person from the building. - 45 - 24.6 24.7 24.8 Jharkhand Building Bye-Laws-2016 In case the owner or occupier fails, neglects or refuses to comply with the notice to repair or to demolish the said building or portion thereof, the Authority shall cause the danger to be removed either by demolition or repair of the building or portion thereof or otherwise. In case of emergency, which, in the opinion of the Authority involves imminent danger to human life or health, the decision of the Authority shall be final. The Authority shall forthwith or with such notice as may be possible promptly cause such building or portion thereof to be rendered safe by retrofitting/strengthening to the degree of safety or removed. For this purpose, the Authority may at once enter such structure or land on which it stands, or abutting land or structure, with such assistance and at such cost as may be deemed necessary. The Authority may also get the adjacent structures vacated and protect the public by appropriate fencing or such other means as may be necessary. Costs incurred under sub-bye laws (6) & (7) shall be charged to the owner of the premises involved. Such cost shall be charged on the premises in respect of which or for the benefit of which the same have been incurred and shall be recoverable as provided under law. 25

**26. Demolition of building.**- 25.1 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. 25.2 The owner shall take all precautionary measures -to avoid noise and dust pollution and shall not create any inconvenience to the neighboring plot owners. Responsibility and Duty of the Applicant/ Builder/ Owner.- 26.1 26.2 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 owner of such building from full responsibility for carrying out the work in accordance with the requirements of these bye laws. Every Applicant/Builder/Owner shall: 26.2. I 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 bye laws; - 46 - 26.2.2 26.2.3 Jharkhand Building Bye-Laws-2016 Obtain, where applicable, from the competent Authority permissions/clearance required in connection with the proposed work; Obtain an Occupancy Certificate from the Authority prior to occupation of building in full or part

**27. Responsibility of Authority,- 27.**1 27.2 27.3 27.4 Approval of plans and acceptance of any statement or document pertaining to such plan shall not exempt the owner or person or persons under whose supervision the building is constructed from the responsibilities imposed under these bye laws, or under any other law for the time being in force. Approval of plan would mean granting of permission to construct under these bye laws only and shall not mean among other things: 27.2.1 27.2.2 27.2.3 27.2.4 27.2.5 27.2.6 The title over the land or building; Easement rights; Variation in area from recorded area ofa plot or a building; Quality of building services and amenities in the construction of the building, The site/area liable to flooding as a result of not taking proper drainage arrangement as per the natural lay of the land, etc. Other requirements or licenses or clearances required for the site/premises or activity under various other laws. The approval or permission shall not bind or render the Authority liable in any way with regard to the matter specified in sub-Bye laws 27.1 to 27.2 above. Maintenance of Register:- A register in

Form-Xll 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. cvc 47 _ 28

**29. Jharkhand Building Bye-Laws-2016 CHAPTER - 111 LAND USE CLASSIFICATION AND PERMISSIBLE USES Zoning 28.**1 In the Planning area or areas where various use zones, residential, commercial, industrial, administrative, institutional, open space uses, transport & communication, green belt, natural drainage channel and water bodies having their zonal boundaries have been indicated, they shall be regulated as per the Table 4. 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 bye laws. 28.2 For all non-confirming land use, no expansion shall be permitted. At the time of redevelopment, stipulated zoning regulations shall be followed. Different use of land 39.1 29.2 29.3 29.4 29.5 29.6 Permission for different uses shall be accorded outright for principal use earmarked in the different zones described in column (2) of table No 4. Permission for different uses described in column-3 of the Table-4 shall be permitted on special consideration and approval of Authority and reasons for such consideration shall be recorded in writing. The purposes specified in column (4) of the said Table shall not be permitted in the areas reserved for particular uses. Residential buildings and others buildings may be permitted in the Urban Agriculture use zone if the following conditions are satisfied along with other conditions of these bye laws: 29.4.1 The land is not a leasehold land; 29.4.2 The coverage is not more than 20%; 29.42 The height is not more than 7.0 (seven) meters; and at least 60% of land is used for plantation/ agriculture; Projects of planned Township Development or Group Housing may be allowed in Urban Agriculture Zone by the authority. Such type of permission shall be accorded by the Authority with the approval of the Urban Development and Housing Department, Jharkhand. Mixed land use may be permitted in a particular zone Oli approval by Authority. However, the main use shall cover not less than 2/3r of the - 48 - 29.7 29.8 29,9 Jharkhand Building Bye-Laws-2016 total floor area and the ancillary use shall not exceed l/ 3rd of the total floor area, Appeals with respect to the above provisions shall lie with the tribunal, In case of Government and Government Sponsored projects, the Urban Development and Housing Department may relax the land use criteria mentioned in table 4, Where Development Plan/Master Plan has not been finalized for any Authority, guidelines for classification of land use shall be issued by Urban Development and Housing Department on the basis of proposal submission by the Authority. This shall be mandatory after enforcement of this Bye-laws. Table 4; Land use permitted/prohibited in different use zones Land uses 1 2 3 4 5 7 8 10 11 12 13 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 Air ort, Helipad, Fi in Club Art gallery, museum, exhibition centre Auto Supply store and Show room for motor vehicie and machiner Automobile service and re airin station Bank and Safe deposit vault Bird Sanctuar Boarding or lodging house Botanical arden Bus Depot Bus Terminal Canteen and eating house serving the industries Cemetery, crematorium, buriai ground, electric crematorium Children Traffic Park Cinema Clinic for ets Clinical Laboratory Club house not conducted primaril as business Club house or other recreational activities conducted as business Cold stora e and ice factor Colle e Commercial/ business 2 Offices Community hali & welfare centre, Contractor plant and storage for building material Convenience Shopping Center Convention Centre Cottage, Handloom and 3 Household Industries Court Creche and Day Care Centre Cultural and Information Center Customary home occupation - 49 _ Jharkhand Building Bye-Laws-2016 31 32 33 34 35 36 37 38 39 41 42 43 44 46 47 48 49 50 51 52 53 54 55 56 57 58 59 60 61 62 63 64 65 66 67 68 69 70 71 72 73 74 75 76 77 78 79 'Land Use Defence Dairy and poultry industry Dispensary Dry Cleaners-cleaning and dyeing Educational and research institution Electric Sub-station Existing Village Fair Ground 4 Film studio Fish curing Flatted Group industry Flood control work Forensic Science Laborato Forest Gas Godown General industries Golf course Green house Gymnasium Health Centre Hos ital Hostels for educational institution indoor Games Hall Jail Junk yard Local/ Municipal, State or Central Government office Mechanical workshop with lathes, drills, grinders, spot welding set Medical, eye and dental practitioners' clinic Monument Motor Driving Training Center Municipal facility (as listed in Annex VI') Music, dance, drama training centre Neighbourhood Shopping Centre-convenience and local shopping with vegetables, fruits, flowers, fish and meat. Night Shelter Nursery, Horticulture and Orchards Nursing Home 9 Oii De ot Open Air Theatre Orphanage Park, play ground, playfield and recreational area Personal Service Shop Petrol filling station Photograph studio and laboratory Piggery Planetarium Police Headquarter and Police Lines Police Station, Out Post and Fire Station Post office, Telephone ZOneS Which oermitted - 50 - 80 81 82 83 84 86 87 88 89 90 91 92 93 94

95 96 97 98 99 100 101 102 103 104 105 106 107 108 109 110 111 112 113 114 Jharkhand Building Bye-Laws-2016 Exchange, Telegraph Offices Professional office of a resident of the remise Public libra Radio broadcasting studio Railwa Station Reformatory ( Juvenile Home) Refinery Religious Piace like temple, Namghar, Sarna Satha\, mos ue, church etc Research and Development Centre Residence cum Work Plot Residential Dwelling Residential Piot- Plotted Housing Restaurant, cafeteria, milk bar Retail Shop Satellite and Telecommunication Center Schools Service Centre Sewera e treatment lant Social, cultural and religious institution Specialised Park/Ground Sports Training Center Stadium Storage of petroleum and other inflammable materials Storage, Warehouses and Godown Swimmin Pool Taxi stand and bus stand, c cle and rickshaw stand Theatre, assembly or concert hall, dance and music hall and such other piace of entertainment; Truck terminal Vendin Booth Vocational Training/ Technical Training Institute Watchmen or caretaker's lod es Water Treatment Plant Weekly Market/ Informal Sector Unit Wholesale Trade Wireless transmitting and weather station, Transmission Tower Zoological ark -51- Jharkhand Building Bye-Laws-2016 Index of Use Zones: R — Residential C — Commercial I — Industrial P— Public & Semi Public T — Transportation G - Green Belt (Recreational and Open Space) E — Eco-sensitive CU I — Composite Use I CU 11 - Composite Use 11 A — Agricultural Use Note: I 2 3 4 5 6 7 8 9 10 11 12 13 All Existing non nuisance, non-polluting uses to continue in the following use zones: - Residential - Commercial - Industrial - Public/Semi-public - Transportation and Communication - Composite Use I - Composite Use 11 All existing non nuisance, non-polluting uses may be allowed to continue [discontinue after an application for special permission to the Authority in the following use zones: - Recreational - Eco-sensitive -A ricultural To be permitted in commercial areas to be indicated in Industrial Use Zones in Local Area Plans/ Layout Plans In Residential use zone, existing uses to continue and new ones to come on special permission from the authority. Refer Annexure — 13.1 In the New Dcvclo mcnt ro oscd Recreational Area Onl Existin uses to continue Onl those industries as listed in Annexure — 13.1 Permitted onl in Heav Industrial Zone Existin locations to continue Permitted onl in Heav Industrial Zone Permitted onl in Heavy Industrial Zone In commercial centers In industrial areas The provision of table 4 shall also be applicable for village settlement as defined in Master Plan. - 52 - 30. 31, Jharkhand Building Bye-Laws-2016 CHAPTER - IV GENERAL REOUIRMENTS Restriction on permission Without prejudice to any other stipulation in these bye laws, no permission to construct a building on a site shall be granted: 30,1 30.2 30,3 30.4 30.5 In areas of natural waterways or drains, as detailed in the Development Plan, and drainage plan as modified from time to time; If the use to which the site is proposed to be put does not conform to the use earmarked in the Development Plan/Master Plan/Zonal Development Plan; 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; As Jharkhand is located in Seismic Zone 11, Ill and IV if the Structural Plans are not prepared taking this into account. In case of areas which get flooded, the Structural Plans are not prepared taking this into account. Requirement of Site 31.1 31.2 31.3 31.4 No building shall be constructed on any site on any part of which there is deposited refuse, excreta or other offensive matter objectionable to the Authority. Until such refuse has been removed there from and the site has been prepared or left in a manner suitable for building purposes to the satisfaction ofthe Authority; Wherever the dampness of a site or the nature of the soil renders such precautions necessary, the ground surface of the site between the walls of any building erected thereon shall be rendered damp-proof to the satisfaction of the Authority; Any land, passage or other area within the cartilage of a building shall, if the Authority so requires, be effectively drained by surface water drains or other means; If the foundation of the external wall along a Street is located at a distance less than one meters from the edge of the street or road margin including the drain; The written approval of the Authority shall be obtained for connecting any sub-sol or surface water drain to a sewer; - 53 - 32. 33

**34. Jharkhand Building Bye-Laws-2016 Distance from Electric lines 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 between the building and any overhead electric supply line.**The minimum distance from the electric line shall be as per Table 5. Table - 5: Minimum distance from electric line Low and medium voltage lines and service lines High voltage lines up to and includin 1 1, 000 Volt High voltage lines above 1 1,000 volt andu to and including 33,000 Volt Extra high voltage line beyond 33,000 Volt Plantation Vertical distance in meters 2.5 Not Permitted Not Permitted Not Permitted

Horizontal distance in meters 2.5 3.7 3.7 3.7 (Plus 0.3 meters for every additional 33,000 volts or art thereof) 33.1 In every building area, at least 5% of the land shall be covered by plantation (tree cover), but in case of multi-storied buildings/ Group Housing /Apartment building/ Industrial/ Assembly/ Educational/ Institutional buildings, it is desirable that at least 10% of the land shall be covered by plantation (tree cover). Internal gardens within the building shall be encouraged. Means of Access 34.1 Every plot shall abut on a public/private means of access like streets/ roads of duly formed of width as specified in these byelaws or specified in the Master Plan/Development/Zonal Plan/Schemeo The minimum width of the road/street required for access to a new building in an existing colony not developed by any authorized agency such as Regional Development Authority, Municipality, Housing Board, Co-operative societies, Government and Semi government organization shall be as per Table 6. Table 6; Length of road limitation Old Area Sl. No. (i) 2 3 4 Maximum Length of the road in Meter Upto 50 meter Exceeding 50 meter and upto 10() meter Exceedin 100 u to 300 meter Exceeding 300 meter Minimum width of road of street in Meter 3.6 meter 5.1 meter 6.6 meter 7.5 meter Note-On less than 6.1 m. wide roads the encroachment from both sides will be removed by measuring 3.05 m. from the centre line of the width of roads declared by ofbelonging to Road Construction Department Jharkhand, Municipal Authorities, Housing Board, Co- o erative Societies, G vernment and Semi-Government Or anizations In other cases - 54 - Jharkhand Building Bye-Laws-2016 maximum 3.05 m, land from such revenue plot on either side will be taken into account to make it 6.1 m. wide road and the construction falling in between the said width of road will be removed as an encroachment. Similarly 1.80 m, and 2.55 m, land from each Revenue plot on either side will be taken into account to make it 3.1 m. and 5.1 m. wide road corres ondin I New Area Residential Sl. No. 1 2 2 3 4 Maximum Length of the road in Meter U to 100 More than 100 to 250 More than 250 to 500 Morc than 500 1000 More than 1000 Minimum width of road of street in Meter 6.10 7.5 9,10 12.20 15.30 Note- If the developments only on one side of the means of access, the prescribed widths maybe reduced by 1.0 meter each case. In no case, development on plots shall be permitted unless it is accessible b a ublic street of width not less than 6 m. New Area Non residential Sl. No. 1 2 3 4 Maximum Length of the road in Meter 200 400 600 above 600 Minimum width of road of street in Meter 7.5 9.1 12.2 15.30 Further, in no case the means of access shall be lesser in width than the internal access ways in layouts and subdivision. 34.2 34.3 34.4 34.5 34.6 34.7 No building construction activity of height more than 8 m. shall happen on a road with a width of less than 3.6 m. (Including Road Widening) in old area, For roads of width 18.30 (60 ft.) and above there shall be no restriction on height and number of floors. However it may be regulated by the Master Plan/Development Plan/Zonal Plan. Unless and otherwise specified, development of plots shall, not be permitted unless it is accessible by a public/private street with the width specified in these bye laws. The width of the road may be increased in a master plan/development plan/zonal plan but under no circumstance the provisions for width of road shall be less than the provisions made under these bye laws. In case of institutional, administrative, assembly, industrial and other non residential and commercial activities, the minimum road width shall be 9.0 meters. In case public land is not available for the road, all 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. 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 Authority, and transfer the same to the Registered Residents' Welfare Association for maintenance. - 55 - 34.8 34.9 34.10 Jharkhand Building Bye-Laws-2016 Access from highways/important Roads-No premises other than, highway amenities like petrol pumps, motels, etc, shall have an access direct from highways and other roads designated by the Road Construction Dcpartmcnt. Thc Road Construction Department shall notify a list of road, which shall not provide direct access to a specified class of buildings. The Authority shall maintain a register of such roads, which shall be open to public inspection at all times during office hours and published on the web site. These provisions shall, however, be subject to the provisions of the relevant State Highway Act, and National Highway Act. The provisions of road width shall be strictly enforced. There shall be no construction over the prescribed road width. Any violation shall be treated as an offence under the Jharkhand Municipal Act-2011 in addition to provision for removal of illegal encroachment under the relevant Acts. Strict steps shall be taken to remove any illegal encroachment which 35. may have resulted in reduction of any road width. the personnel responsible for such illegal encroachment shall be severely dealt with and prosecuted as per law. Minimum size of plots and road

width 35.1 The minimum size of plots and road width for different categories of building is given in Table 7. Table - 7: Category wise size of plots Category Marria e Halls Cinema, Multiplex, Shopping Malls, Convention centers, Game centcrs, Min. road width Min. size of plot in Sqme Social clubs and amenities Multi store car arkin Office buildin s Primar /U er Primar school Hi h School, Residential School +2 Colle e/ Junior Colle e De ree Colle e Technical educational institution Petrol Pum s/Fillin stations Restaurant LPG stora es Places of con re ation Public libraries Conference hall Community' hall Nursin homes/ 01 clinics/Hos Hotel (below three star) Hotel (three star and above) Lab Grou Housing ital m 12.20 18.30 12.20 12.20 12.20 09.00 12.20 12.20 12,20 12.20 12.20 12.20 12.20 12.20 12.20 12.20 12.20 12.20 12.20 18.30 18.30 6.10 1000 2000 OOO 1000 300 2000 6000 4000 6000 10000 500 500 500 500 300 1000 500 300 OOO 2000 1500 3000 - 56 - Note: (1) (2) (3) (4) (5) Jharkhand Building Bye-Laws-2016 In exceptional eases the Authority may consider revising the minimum size of plot with the approval of the Government, The above (requirement) area of minimum size of the plot may be relaxed by 5% while sanctioning the plan. No high rise building (building with a height above 16.4 meters) shall be allowed on a plot size less than 1000 sqms Minimum existing road width for building more than 13,3 m in height shall be not less than 6.1 m, For all plotc abutting n road lec€ than 12.2m width for proposed to be used for Primary/ Upper Primary School a lay-by of paved area contiguous to the road for turning of vehicles and fire engines should be left, This lay-by should be of minimum dimension of 9m x 9m. 36. size/plot for residential in non high rising category shall be as per Table 8 and 9, The minimum setback for commercial and mercantile buildings shall be as per Table 10 and I l. Table - 8: Minimum Front and Rear setbacks and height of residential buildings 1.5 1.5 1.8 Minimum setbacks & Height for non-high rise buildings (l) The minimum setbacks and height of buildings permissible in a given Sie I 2 3 4 5 6 7 8 Average Depth of plot (In meters) ii Upto 10m Exceeding 10m & u to 15m Exceeding 15m & u to 21m Exceeding 21m & u to 27m Exceeding 27m & u to 33m Exceedi ng 33m & u to 39m Exceeding 39m & u to 45m More the 45m Building Height Upto G+2 Maximum-I()m Building Height Upto G+3 Maximum- 13.3m Minimum Minimum Front set Rear set Building Height Upto G+4 Maximum-16.4m Minimum Minimum Front set Rear set Minimum Front set back m iii 1.5 2.0 2.5 3.0 4.0 4.0 4.0 4.0 Minimum Rear set back m iv 0.90 4.0 4.0 back m back m vi back m vii back m viii No construction shall be ermitted No construction shall be ermitted No construction shall be permitted 3.0 3.0 3.0 4.5 4.5 5.0 1.5 1.8 2.0 3.0 4.0 4.0 5.0 3.5 4.0 4.5 5.0 6.0 3.5 4.0 4.5 5.0 - 57 - Jharkhand Building Bye-Laws-2016 Table 9. Minimum Side setbacks for residential buildings 1 2 3 4 5 6 7 8 2 3 4 5 6 7 8 1 2 3 4 5 6 7 8 I 2 3 4 Average Width of plot in meters ii Upto 10m Exceeding 10m & u to 15m Exceeding 15m & u to 21m Exceeding 21m & u to 27m Exceeding 27m & u to 33m Exceeding 33m & u to 39m Exceeding 39m & u to 45m More the 45m Building Height Upto G+2 Maxmimum-l()m iii At least one side from 0.90 m. Building Height Upto G+3 Maxmimum-13.3m vi No construction shall be ermitted Building Height Upto G+4 Maxmimum-1614111 vii viii No construction shall be ermitted No construction shall be ermitted 0.90 1.0 1.5 1.5 2.0 3.0 3.66 0.90 1.0 1.5 1.5 2.0 3.0 3.66 0.90 1.5 2.0 2.5 3.0 3.66 4.00 0.90 1.5 2.0 2.5 3.0 3.66 4.00 2.0 2.5 3.0 3.66 4.50 5.00 2.0 2.5 3.0 3.66 4.50 5.00 Table 10. Minimum front and rear setback for commercial/mercantile buildings Buildin Hei htu to 16.4 m Average Depth of plot (In meters) Minimum Front set back m iii Minimum Rear set back m iv ii U to 10m Exceedin 10m & u Exceeding 15m & u Exceedin 21m & u Exceedin 27m & u Exceedin 33m & u Exceeding 39m & u No construction is allowed to 15m to 21m to 27m to 33m to 39m to 45m More than 45m 4.5 5.5 6.0 6.5 7.0 7.5 8.0 3.0 4.0 4.0 4.0 4.5 4.5 5.0 Table 11. Minimum side setbacks for commercial/mercantile buildings Average width of plot (In meters) ii U to 10m Exceeding 10m & u to 15m Exceedin 15m & u to 21m Exceedin 21m & u to 27m Exceedin 27m & u to 33m Exceedin 33m & upto 39m Exceedin 39m & u to 45m More than 45m Buildin Hei htu t016.4m Minimum Left Minimum Right set set back m iii back m At least one side 1.5 m. 2.0 2.5 3.0 4.0 4.0 5.0 5.5 Table 12. Open spaces around industrial buildings Plot Size ii 550 sqm to 1000 sqm 1000 sqm to 5000 sqm 5000 sqm to 30000 sqm Above 3()000 sqm. Minimum Front set back (m) iii 9.0 10.0 12.0 15.0 Minimum Rear set back (m) iv 4.5 6.0 9.0 12.0 2.0 2.5 3.0 4.0 4.0 5.0 5.5 Minimum Sides set back (m) 4.5 6.0 9.0 10.0 - 58 - Jharkhand Building Bye-Laws-2016 Table 13. Minimum set back for industrial building constructed over plot size upto 550 sqm. i 1 2 3 4 5 Width of Plot ii Upto IO mtrs. Exceeding 10m & upto 12m Exceeding 12m & upto 15m Exceeding 15m & upto 18m Exceeding 18m Minimum Front set back (m) iii 3.0 4.0 5.0 6.0 6.0 Minimum Rear set back (m) iv 3.0 3.0 3.0 4.0 4.5 Minimum Sides set back (m) 1.5 2.0 3.0 4.0 4.5 37. Minimum setbacks for high rise buildings For high-rise/ multi-storied buildings, the open

spaces around the (1) building unless or otherwise specified shall be as given in the Table 14, Table -14: Minimum exterior open spaces around the buildings for all type of high rise buildings unless otherwise specified Exterior open spaces to be left out on all sides in m. Sl. 1 2 3 4 Note:- (1) (3) Height of the Building Upto (m) More than 16.4 and upto 19.25m More than 19.25m and upto 23.10m More than 23.10m and upto 30m Front setback 6.5 7.5 8.0 Side and Rear setback 4.5 4.5 5.0 In case of buildings of more than 30m height, for every increase in height of 3.35m. or fraction thereof or addition of one floor, 1m. in the front set back and 0.75 m. in the sides and rear setbacks shall be added. In no case the minimum setbacks shall be less than those specified in sub-section 42.1 of these Bye Law for high rise buildings in the mentioned category. In case of multi storied buildings the exterior open space around a building shall be of hard surface capable of taking load of fire, engine weighting up to 45 tones. Coverage of Building Maximum ground coverage 1. 2. 3

**4. Up to 235 sqm.**of plot and building ht. not exceeding 10m. Up to 1000 sqm. of plot and building ht. up to 16.4m. Above 1000 sqm. of plot area or building ht. of more than 16.4m. For commercial uses ground coverage is 50% of the plot area. -70% 38. General Conditions for Setback In case of more than one block of buildings are constructed on the 38.1 same the plot, the minimum distance between the two blocks shall be 6m. (Six meter) or 1.5 times side setback required for the taller block whichever is higher. Basement can be constructed in this open area in between the buildings, top of which may be used as passage and garden and if used - 59 - Jharkhand Building Bye-Laws-2016 for vehicular passage the roof slab should have sufficient strength for the fire of engine 45 tones. The minimum setbacks/open spaces for other occupancies shall be as 38.2 38.3 38.4 below; 38.2.1 38.2.2 38.2.3 38.2.4 38.2.5 38.2.6 41.2.7 38.2.8 38.2.9 Educational buildings - In case of educational buildings the open spaces around the building shall not be less than 6 meter. The front set back shall be not less than 9 m. Institutional buildings - The open spaces around the building shall not be less than 6 m. The front setback shall be not less than of 9m. Assembly buildings- The open space in front shall be not less than 12m and the other open spaces around the building shall not be less than 6m. Malls and Multiplex- The front set back shall not be less than 12 m, the rear set back shall not be less than 7 m and the side set back shall not be less than 7m. Commercial & Storage buildings - In case of plots with more than 1000 sqm. area, the open spaces around the building shall not be less than 6.0 m. The front setback shall be of 9m. In all other cases it shall be as per Table 10. and table 14 Industrial buildings - The setbacks shall be as per Table 12 and 13. Hazardous occupancies - The open spaces around the building shall not be less than 9 m. The front set back shall be of 12m. 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. IT/ ITES Buildings-Abutting a means of access of 12 m or more the setback, height, number of floors and FAR shall be applicable as per commercial building in respect of corresponding road width. The setbacks shall be calculated on the basis of highest provision of setback mentioned either in the above table or mentioned in these Bye Laws. The setbacks are to be left after leaving the affected area of the plot/site, if any, for road widening. -60 - 38.5 38,6 38.7 Jharkhand _Building Bye-Laws-2016 Where a site abuts more than one road, then the front setback should be towards the bigger road width or main approach road in case of equal widths. The side setbacks shall be as per the width of plot and rear set back as per the depth of plot. 38.5.1 38.5.2 Road junction corner plots shall have sufficient weaving angle. In no case it shall be less than the space arrived at by drawing a quadrant of a circle of 4.5m radius at the edge of the actual road lines leaving the width of pedestrian walks (foot path) and the plot boundaries shall be rounded of by drawing a quadrant of the circle of 2.7m radius at the edge of plot boundaries, The height of the boundary wall shall be restricted to 0.75m for a length of 5m on the front and side of the intersections and the remaining height of 1.5m shall be made up of steel grill work. For narrow plots having extent not more than 400 sqm. and where the length is 4 times of the width of the plot, the setbacks on sides may' be compensated in front and rear setbacks so as to ensure that the overall aggregate setbacks are maintained in the site, subject to maintaining a minimum of side setback of 1m in case of buildings of height up to 10m. and minimum of 2m, in case of buildings of height up to 12 m. without exceeding overall permissible plinth area. The master plan/development plan/zonal plan shall also specify a building line for various areas. The setbacks shall accordingly be changed without reducing the minimum required setbacks under these bye laws

**39. Floor Area Ratio 39.**1 The Floor Area Ratio (F.A.R) for buildings shall be decided on the basis of the road width on which the plot/site abuts as per Table 15 and 16 and with upper limit for various ULBs as

indicated in Annexure-Ill. Table 15: Road width and FAR table for (OLD AREA) Road Width (in meter) 3.60 (12 less than 4.80m 4.80 (16 ft.)to less than6.10m 6,10 (20 ft.) to less than 7.5m 7.5 (25 ft.)to less than 9.10m FAR Non Residential Maximum Floor Height (in Category 0-1 0-11 0-111 0-1V 1.5 1.8 2.0 2.5 residential Nil Nil 2.0 2.5 CJ+2 G 4-2 S+4 CJ+5 meter) 10.0 10.0 16.4 19.25 Conditions Parking shall be allowed on any floor, Under no circumstances the parking floors or -61- Jharkhand Building Bye-Laws-2016 0-v O-VI o-VII Note: 9.10 (30 ft.)to less than 12.20m 12,20 (40 ft.)to less than 18.30m 18.30 (60 ft) and above 2.5 2.5 2.5 2.5 2.5 3.00 23.10 provision for parking shall be used for any other purposes. Mezaninine floors or any floor partition shall Maximum Height 30 be computed under meter FAR and counted as a floor. No restriction on height and number of floors however it may be regulated by the master Ian/develo ment Ian/zonal Ian. i) A plot abutting on less than 3.60 m. width road shall have only maximum 7m. height and maximum F.A.R— 1.2 In all cases the height of any building shall be not more than as prescribed in 40.1.1 Table. 16: Road width and FAR table (NEW AREA) FAR Road Width Category Non (in meter) Residential Floor G 4-4 N-11 N-lll N-IV N-VI Note: 39.2 39.3 39.4 6.10 (20 ft.) to less than 7.5m 7.5 (25 ft.)to less than 9.10m 9.10 (30 ft.)to less than 12.20m 12.20 (40 ft.)to less than 18.30m 18.30 (60 ft) to less than 24.40 (80 ft.) and above 2.0 2.5 2.5 2.5 2.5 3.0 residential 2.0 2.5 2.5 2.5 3.0 3.0 Maximum Height in meter 16.4 19.25 23.10 Maximum Height 30 meter Height restriction as per rule-39 and 40.101 Conditions Parking shall be allowed on any floor. Under no circumstances the parking floors or provision for parking shall be used for any other purposes. Mezzanine floors or any floor partition shall be computed under FAR and counted as a floor, In all cases the height of any building shall be not more than as prescribed in 40.1.1 While sanctioning the plans on building with a road width of 3.6m (12 feet) and 4.8m. (16 feet) the Authority shall ensure that enough parking spaces for vehicles have been made within the building/plot and that the vehicles shall not parked on the road. Provisions related to length of the road in Table 6 shall be adhered too In ease of Educational, Institutional and Assembly building the maximum permissible FAR shall be 2.0 for plots up to 1000 sq. m. and 2.25 for plots above 1000 sq. m. 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 2.0, - 62 - 39.5 39.6 39.7 39.8 39.9 Jharkhand Building Bye-Laws-2016 In case of Industrial buildings the maximum FAR shall be 1.5 for polluting and hazardous industries. In case of non-polluting and cottage industries the maximum FAR shall be 2.0 The FAR and Height of the building may also be regulated by the master plan/development plan or the zonal plan. In case the plot is affected by a road widening or in the way to construct a new road/ parks/any public utility and if the owner of the plot voluntarily surrenders the affected portion of his land to the Authority without any claim of compensation or through a. TDR (Transferable Development Right) scheme implemented by the Government the owner shall be entitled to build on the remaining plot, an area calculated on the basis of the FAR as applied to the total area prior to such surrender. Provided that the surrender of the land shall be affected by a deed of transfer to be executed by the owner in favour of the Authority for widening of road. The plot owner can use this T D.R for any other new building project within the jurisdiction of the Competent Authority. Exclusive multistoried parking blocks can be provided within the required setback area with ramp provision or Car Lift. If car lift is provided in place of ramp then it should be minimum of 02 (Two) nos., for first 500sqm. parking space requirement and additional 01 (One) for part thereof along with 02 (Two) separate wiring circuit. These car lifts shall have separate wiring circuit for each car lift and shall also be powered with backup generators of sufficient capacity The placing of multistoried parking blocks in this fashion should be without reducing the driveway for the fire tender to the extent of minimum of 6 meters. For incentive to the developer, this parking block area will not be included in the calculation of FAR. FAR shall not include 39.9.1 39.9.2 39.9.3 Basements or cellars and space/floors under a building constructed on stilts and used only as a parking space, and air conditioning or other plant room which are to be used as accessory to the principal use of the building; Multistoried Parking built as per NBC norms Electric cabin/panel room or substation, watchman booth of maximum size of 4sqm. with minimum width or diameter of 2m., pump house, garbage shaft/garbage bins, space required for location of fire hydrants, electric fittings and water tank, Service Ducts, society room of maximum 12 sqm., entrance lobby of maximum 12 sqm., common toilet of maximum - 63 - 39.9.4 39.9.5 39.9.6 39.9.7 39.9.8 Jharkhand Building Bye-Laws-2() 1 6 5sqm., guard room of maximum of IO sq.m. with toilet for guards and drivers of maximum 5sqm. Projections and buildings accessories as specifically exempted from the open

space/setback requirement. Staircase room and lift rooms above the topmost storey, architectural features, chimneys and elevated tanks. The area of the lift shaft shall be taken only on one floor. Fire escape staircases. Parking area on stilts in one or more floors Balconies/Terrace more than one story in height and open on minimum two sides. 40. 39.10 Additional FAR, as may be desired by the authority, be allowed for 39.10.1 Government Buildings/Government Projects/Projects developed by any govt. agency with the prior approval of Urban Development and Housing Department. 39.10.2 For other buildings as per provision in Annexure-III with the approval of Urban Development and Housing Department. Height of a building 40.1 40.2 40.3 The height of the building shall be governed by the limitations of Floor Area Ratio, open space (setbacks), and the width of the street facing the plot described as detailed below: 40.1.1 40.1.2 The maximum height of a building shall in no case exceed (1.5 times the width of the road on which the plot abuts) + Road widening + the front setback. If a building abuts on two or more streets of different widths, the building shall be deemed to face upon the street that has the greater width and the height of the building shall be regulated by the width of that street. Not withstanding anything contained in sub-bye law the height restrictions with respect to approach Funnels and Transitional area of Airport as detailed in Table -17 and 18 shall be adhered to. Any height restrictions imposed by the Airport Authorities shall be adhered to. Not withstanding anything contained in the tables under sub-bye law, no Radio Aerial, T.V. Antenna, Cell phone tower or such similar type of installations exceeding 52m. in height shall be erected without prior permission of the concerned Civil Aviation Authority/Airport Authority. - 64 - 40.4 Jharkhand Building Bye-Laws-2016 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. Table- 17; Height restriction with respect to approach funnels Distance from nearest runway end (In metres) U to 360 631 to 510 511 to 660 661 to 810 81 1 to 960 961 to 1110 1261 to 1410 1411 to 1560 More than 1560 Maximum Permissible height above the elevation of the nearest runwa end 6 9 12 15 18 21 24 27 30 Table -18: Hei ht restriction with res ect to transitional area Maximum Permissible height above the elevation of the airport reference point metres 3 6 9 12 15 18 21 24 27 30 41. Distance of the Inner Boundary of the Transitional Area (Outer Boundary of the Air Port) Metres] U to 21 22 to 42 43 to 63 64 to 84 85 to 105 106 to 126 127 to 147 148 to 168 169 to 189 190 to 210 More than 210 M Off Street Parking Space.- In all buildings including Apartment buildings/Group Housing, 41.1 Hotels, Restaurants and Lodges, business buildings, commercial buildings, Institutional buildings like hospitals, Educational buildings like schools and colleges, multi-storied buildings/complexes etc. and all other non-residential activities provision shall be made for parking spaces as per the require ents mentioned in table 19. - 65 - Jharkhand Building Bye-Laws-2016 Table 19: Parking space for different category of occupancies ONE CAR PARKING FOR EVERY OR FRACTION THEREOF: (THE MINIMUM SIZE OF A CAR PARKING STALL SHALL BE 2.40MX 4.80M., AND MINIMUM STALL LENGTH OF 5.40M. FOR PARALLEL PARKING, WITH A MINIMUM DRIVEWAY WIDTH OF 4.25 M. 1 2 3 4 5 OCCUPANCY TYPE Residential a) Multi-Family b) Lodging establishment, tourist homes and hotels with lodging accommodation Educational ( see Note l) Institutional Medical Buildings for Public Gathering a) Assembly halls, Cinema theatres and Auditoria b) Restaurants (Including Restaurants in Lodging establishment, tourist homes and hotels with lodging accommodation) c ) Stadia d) exhibition centres Commercial a) Business offices and firms for private business b) Public or semi- public offices c) Mercantile (see note 3) d) Industrial e) Storage Population up to 50 ooo I apartment 8 uest rooms 150 sq.m of area of the administrative office area and public service area 10 bed (Private) 15 beds Public 25 seats 20 seats 200 seats 200 sq.m. of built up area excluding parking and services areas 300 sq.m. of built up area excluding parking and services areas 200 sq.m. of built up area excluding parking and services areas 400 sq.m. 600 sq.m. Population up to 1 50,000 1 apartment 6 guest rooms 100 sq.m of area of the administrative office area and public service area 7 bed (Private) 12 beds Public 15 seats 20 seats 100 seats 150sq.m. of built up area excluding parking and services areas 200 sq.m. of built up area excluding parking and services areas 100 sq.m. of built up area excluding parking and services areas 300 sq.m. 500 sq.m. Population up to 10 oo,ooo I apartment 4 guest rooms 70 sq.m of area of the administrative office area and public service area 5 bed (Private) IO beds Public 10 seats 10 seats 40 seats 100 sq.m. of built up area excluding parking and services areas 100 sq.m. of built up area excluding parking and services areas 100 sq.m. of built up area excluding parking and service} areas 200 sq.m 400 sq.m. Population and above I apartment of built area up to 140 sq. m. and 0.5 apartment of built area above 140 sq. m 3 guest rooms 50

sq.m of area of the administrative office area and public service area 2 bed (Private) 5 beds Public 10 seats 10 seats 20 seats 75 sq.m. of built up area excluding parking and services areas 75 sq.m. of built up area excluding parking and services areas 75 sq.m of built up area excluding parking and services areas 100 sqm- 250 sqm. - 66 - 41,2 Jharkhand Building Bye-Laws-2016 Parking spaces may be provided in the following areas (The minimum width of driveways should not be less than 4.50 41.2-1 41.2.2 41.2.3 41.2.4 4182.5 41.2.6 NOTES: In basements On stilt in one or more floors. (All structural precautions, like cross bracings, shall be taken in case of stilted areas for earth quack and lateral loads.) Parking in open areas or in setbacks with minimum driveway width of 4.50m. Exclusive multi-level parking Roof top parking in case of commercial/IT/ITES and corporate building A combination of any or all of the above. 1, 2. 3. 4, 5, 6. In case of Auditoria for institutional and educational buildings, additional parking spaces shall be provided as per 4 ( a) For other institutions, transport, communication center and occupancy types not mentioned above, parking requirements shall be decided by the authority. For shops on plots up to 50 sq.m. parking space need not be insisted upon. For all apartment/ multi dwelling of residential buildings: (a) (b) Extra 15 % of the total car parking requirement should be reserved for visitors and should not be sold /settled. Such parking space shall be indicated by painting "Visitor's parking" on the floor. One number of two wheeler parking, of a minimum size of I m x 2 m. excluding the driveway, should be provided for every one apartment / dwelling unit All non-residential buildings should provide one third area, out of the total car parking area, for parking of two wheelers. These two wheeler parking should have a minimum size of I m x 2 m. excluding the driveway, The minimum width of the drive way meant exclusively for 2 wheelers should be 3m, In addition to the parking spaces provided for building of mercantile (commercial) Industrial and storage type, one space of 3.50X7.50 meters for loading and unloading activities, for each 2000sqm. of total area (as per FAR calculation) or fraction thereof shall be provided 41.3 41.4 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 maneuvering of vehicles. If the total off-street parking space required under these bye laws 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 be r pro rtionate cost. -67- 41.5 41.6 41.7 41.8 41.9 41.10 Jharkhand Building Bye-Laws-2016 Garage with locking facilities shall be included in the calculation of the requirement of parking spaces, but the same will be not be exempt from FAR calculation. Parking spaces may be provided in the set back area on the condition that the minimum drive way width of 4.5 m as required around a building under these bye laws is ensured These parking spaces can be covered by temporary roofing and will not be counted in FAR but subject to realization of fees as built area. Misuse of the area specified for parking of vehicles for any other use shall be summarily removed/demolished by the Authority. The expenses incurred in this regard shall be chargeable upon such defaulter. The Authority shall not be responsible for any damage caused to the structure, property or adjacent structures during such removal/demolition. For parking spaces in basements and upper storey of parking floors, at least two ramps of minimum of 3.00m width if it is strait and 3.6 width if it is curved at any point, or one ramp of minimum 4.5 m width and with minimum slope gradient of for depth up to 1.8m and 1:10 for more than 1.8m depth shall be provided. Such ramps may be permitted in the front, side and rear setbacks after leaving 4.5m space for movement of fire-fighting vehicles. In case of natural slope of the land, the sloping side or rear open spaces may be treated as ramp provided it has minimum gradient requirements. Access to the basement or terrace parking may also be accomplished through provisions of mechanical lifts. In case of roof slabs or over the basement on which the fire engines/ fire vehicle will move shall be capable of taking the load of fire engine/ fire vehicle of at least 45 tones. Up to 10% maximum of basement area may be utilized for utilities and non-habitation purpose like A/C plant room, Electrical installations, laundry excluding generators and transformers. At least 15 % of the parking space in any apartment buildings shall be earmarked for visitors. Such parking space shall be indicated by painting "Visitor's parking" on the floor. The Visitors parking facility shall be open to all visitors and shall not be sold or settled. 41.11 All buildings with a height of 30m. and above or total built-up area more than 10,000sqm. shall have parking space earmarked for ambulance, fire tender and physically challenged persons. Such spaces shall be clearly indicated by painting on the floor the purpose for which the parking space is reserved. -68 -

**42. Jharkhand Building Bye-Laws-2()16 41.** 12 The Basement, apart for Parking, may be used for other activities like library and Games Room only in case of Residential and Institutional Buildings, provided arrangement for adequate natural lighting, ventilation and fire safety as per norms are provided. In such cases the soffit of roof slab of the basement should be minimum of I .20m. above the surrounding highest ground level, 41.13 License shall not be issued or shall be withdrawn if the provision of parking is not as per the bylaws of occupancy groups of Institutional, Commercial or Public Gathering Buildings and shall not be permitted to carry out any activity or business without having provision of parking spaces as detailed in table no.19. This restriction shall also be applicable for part or parts of the building that is let out or sold. The current occupier of the building or part of the building shall not be given license or allowed to carry out any activity or business in such premises that is sold or let out, if the required parking area is not available for the size of the concerned premises. 41.14 Parking fees shall be charged as prescribed by the authority for that area for parking lot etc, deficient parking spaces from all existing Institutional building, Commercial building or Public Gathering Buildings where insufficient parking spaces as per Bye-laws applicable at the time of sanction of the plan of respective structures/Building, If proof of sanction by competent authority is not produced the requirement of parking shall be calculated as per prevailing Bye-laws. The fees shall be recovered as prescribed in section 184 of Jharkhand Municipal Act, 2011. 41.15 5% area of parking space provided should be reserved as provision for Electric & Hybrid Vehicle parking space with duly designed charging station/ point in all Public Buildings such as offices, malls, colleges, parking lots, hospitals, petrol stations, airport, railway station etc. Requirement of Parts of Building The various parts of the buildings shall have the following minimum specifications. 42.1 Plinth 42.1.1 Main Buildings: The plinth or any part ofa building shall be so located with respect to the surrounding ground level that adequate drainage of the site is assured. The height of the plinth (except in case of stilted parking) shall be not less than 450 mm from the surrounding ground level. 69 - Jharkhand Building Bye-Laws-2016 Habitable Rooms 42.2 42.3 42.2. I 42.2.2 Kitchen 42.3. I 42.3.2 42.3.3 Height: The height of all rooms for human habitation shall not be less than 2.75 m measured from the surface of the floor to the lowest point of the ceiling (bottom of slab). In the case of pitched roof, the average height of rooms shall not be less than 2.75 m. The minimum clear head room under a beam, folded plates or eaves shall be 2.4 m. In the case of air-conditioned rooms, a height of not less than 2.4 m measured from the surface of the floor to the lowest point of air-conditioning duct or the false ceiling shall be provided. These requirements shall apply to residential, business and mercantile buildings. For educational and industrial buildings, the following minimum requirements apply: • Educational: Ceiling height 3.3 m minimum • Industrial: As per Factory Act, 1948 and Rules therein Size: The area of habitable room shall not be less than 9.5sqm., where there is only one room with a minimum width of 2.4m. Where there are two rooms, one of these shall not be less than 9.5 Sq meter and the other not less than 7.5sqm. with a minimum width of 2.1 m. Height: The height ofa kitchen measured from the surface of the floor to the lowest point in the ceiling (bottom slab) shall not be less than 2.75 m, except for the portion to accommodate floor trap of the upper floor. Size: The area of a kitchen where separate dining area is provided, shall be not less than 5.0 Sq meter with a minimum width of I .8 m. Where there is a separate store, the area of the kitchen maybe reduced to 4.5 Sq meter. A kitchen, which is intended for use as a dining area also, shall have a floor area of not less than 7.5 Sq meter with a minimum width of 2.1 m. Other Requirements: Every room to be used as kitchen shall have: i unless separately provided in a pantry, means for the washing of kitchen utensils which shall lead directly or through a sink to a grated and trapped connection to the waste pipe; -70 - Jharkhand Building Bye-Laws-2016 ii an impermeable floor; iii- a flue, if found necessary; and iv a window or ventilator or opening of sufficient size, Bathrooms and Water-Closets: 42.5 42.4.2 42.4.3 Parapet Height: The height of a bathroom or water-closet measured from the surface of the floor to the lowest point in the ceiling (bottom of slab) shall not be less than 2.4 metero Size: The area of a bathroom shall not be less than IR Sq meter with a minimum width of 1.2 m. The floor area of water-closet shall be 1.2 Sq meter with a minimum width of 1.0 m. if bath and water-closet are combined, its floor area shall not be less than 2.8 Sq meter with a minimum width of 1,2 m, Other Requirements: Every bathroom or water-closet shall: i. Be so situated that at least one of its walls shall open to external air; or a duct/ventilation shaft or mechanically ventilated; ii Not be directly over or under any room other than another water-closet, washing place or bath, unless it has a water-tight floor; iii. Be provided, with an impervious floor covering, sloping towards the drain with a suitable grade and not towards verandah or any other room; and iv Have a

window or ventilator, opening to a shaft/duct or open space, No room containing water-closets shall be used for any purpose except as a lavatory and no such room shall open directly into any kitchen or cooking space by a door, window or other opening. Every room containing water- closet shall have a door completely closing the entrance to it. Parapet walls and handrails provided on the edges of roof terraces, balcony, verandah, etc shall not be less than m and not more than 1.2 m in height from the finished floor level, Ventilation Shaft as per NBC -71-

**43. Jharkhand Building Bye-Laws-2016 Exit Requirements 43.**1 43.2 43.3 General Every building meant for human occupancy shall be provided with exits sufficient to permit safe escape of occupants, in case of fire or other emergency. 43.101 43.1.2 43.1.3 4301.4 43.1.5 43.1.6 43.1.7 43.1.8 43.1.9 In every building exit shall comply with the minimum requirement of exit. All exits shall be free from obstructions. No building shall be altered so as to reduce the number, width of protection of exits to less than that required. Exits shall be clearly visible and the routes to reach the exits shall be clearly marked and signposted to guide the population of floor concerned. Adequate and reliable illumination shall be provided for exits. Firefighting equipment shall be suitably located and clearly marked, Alarm devices shall be installed to ensure prompt evacuation of the population concerned. All exits shall provide continuous means of egress to the exterior of building or to an exterior open space leading to street. Exits shall be so arranged that they may be reached without passing through another occupied unit. Arrangement of exits Exits shall be so located so that the travel distance on the floor shall not exceed 20 meters for residential, educational, institutional, and hazardous occupancies and 30 meters for assembly, business mercantile, industrial and storage occupancies. Capacities of Exits 43.3. I 43.3.2 The unit of exit width used to measure capacity of any exit shall be 50cm. A clear width of 25cm. shall be counted as an additional half unit. Clear width less than 25cm. shall not be counted for exit width. The occupancies per unit exit which shall be as given in Table-20. - 72 - Jharkhand Building Bye-Laws-2016 Table 20: Number of occupants as per type of occupancy (l) 1 2 3 4 5 6 7 8 9 Explanation: (B) (C) (D) (E) Type of Occupancy (2) Residential Educational Institutional Assembl Business Mercantile Industrial Stora e Hazardous Number of occu ants Stair Case (3) 25 25 25 60 50 50 50 50 25 er unit exit Door (4) 75 75 75 90 75 75 75 75 IO Lifts and escalators shall not be considered as an exit, 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. For the dorm itory portions of homes for the aged, orphanages, mental hospitals, etc. these multipliers will be doubled, The plinth or covered area shall include, in addition to the main assembly rooms or space, any occupied connecting room or space in the same storey or in the storey above or below where entrance is common to such rooms and space and they are available for use by the occupants of the assembly place. No deductions shall be made in the gross area of the corridors, closets or other sub-divisions; all space serving the particular assembly occupancy shall be reckoned. 43.4 Other requirements of Exits- 43.4. I 43.4.3 Every exit doorway shall open into a enclosed stairway, a horizontal exit, on a corridor or passageway providing continuous and protected means of egress. No exit doorway shall be less than 1.00 m. in width. Doorways shall be not less than 2.00 m. in height. Exit doorways shall open outwards, that is away from the room but shall not obstruct the travel along any exit. No - 73 - 434.4 Jharkhand Building Bye-Laws-2016 door, when opened shall reduce the required width of stairway or landing to less than 90cm. Over head or sliding doors shall not be installed. 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. Exit doorways shall be operable from the side which they serve without the use of key. 43.5 Other Exists 43.5.1 43.5.2 Revolving Doors 43.5.1.1 43.5.1.2 Stairways 43.5.2.1 43.5.2.2 43.5.2.3 43.5.2.4 43.5.2.5 Revolving doors shall not be used as required exits except in residential, business and mercantile occupancies, but shall not constitute more than half the total required door width. When revolving door is considered as required exit way the following assumptions shall be made. Each revolving door shall be constituted on half unit exit width. Revolving door shall not be located at the foot of a stairway. Any stairway served by a revolving door shall discharge through a lobby or foyer. Interior stairs shall be constructe4 of non- combustible materials throughout. Interior staircase shall be constructed as a self- contained unit with at least one side adjacent to an external wall and shall be completely. A

staircase shall not be arranged round a lift shaft unless the latter is entirely enclosed by a material of fire-resistance rating. Hollow combustible construction shall not be perm itted. The width of the stair cases, and horizontal exists should be calculated as per clause 4.2 of part 4 (Fire and life Safety) of National Building Code. - 74 - Jharkhand Building Bye-Laws-2016 43.5.2.6 43.5.2.7 43.5.2.8 The minimum width of treads without nosing shall be 25 cm. for an internal staircase for residential building. 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. The maximum height of riser shall be 17.5 cm in the case of residential buildings and 15 cm. in the case of other buildings. They shall be limited to 14 per flight. Parapet or hand rails shall be provided with a minimum height of 90 cm. from the centre of the trend 43.5.3 43.5.4 Fire Escape or external stairs 43.5.3.1 43.5.3.2 43.5.3.3 43.5.3.4 43.5.3.5 43.5.3.6 43.5.3.7 Fire escapes shall not be taken into account in calculating the evacuation time ofa building. All fire escapes shall be directly connected to the ground. Entrance to fire escape shall be separate and remote from the internal staircase. The route .of fire escape shall be free from obstructions at all times except a doorway leading to the fire escape which shall have the required fire resistance. Fire escape shall be constructed of non- combustible materials. Fire escape stairs shall have straight flight not less than 90 cm. wide with 25cm. treads and riser not more than 20 cm. The number of riser shall be limited to 16 per flight. Handrails shall be of a height not less than 100cm. Spiral Stair (Fire escape)- The use of spiral staircase shall be limited to low occupant load and to a building of height 10m. unless they are connected to platforms, such as balconies and terraces to allow escapes to pause. A spiral fire escape shall be not less that 150cm. in diameter and shall be designed to give adequate headroom, up to a maximum height of 15m. -75 - Jharkhand Building Bye-Laws-2016 43.5.5 Ramps 43.5.5.1 43.5.5.2 43.5.5.3 43.5.5.4 43.5.5.5 43.5.5.6 43.5.5.7 Minimum gradient for the ramps going down to the basement only for parking purposes of maximum of 2.4m. depth should be 1:7 and for depth more than 2.4m. it should be 1:10 For all slopes the ramp shall be surfaced with approved non slipping materials. Parking may be provided along the run of Ramp if the slope is not steeper than 1:20 and the Ramp will be treated as driveway. Ramps may be permitted in the rear setback for the for the buildings whose width area in rear side is more or equal to 30m. after leaving requisite setback and the length of the ramp should not exceed more than 50% of such width and also an open an open space of 1.5m. should be left for drainage etc. between the ramp & boundary wall provided the side setback is not less than 4.5m. Ramps may also be permitted in the front setback after leaving 4.5m. from the front boundary. (excluding road widening strip if applicable) Ramps may also be permitted in the side back after leaving 4.5m. from the boundary. Ramps for Hospital: In the case of Hospitals, the slope of ramp shall not be greater than I :20

**44. Interior open space 44.**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 meters X 3 meters in cases of buildings up to a height of 12meters. In cases where the height of the building is more than 12meters, the width of the interior open space shall be increased at the rate of one meter for every additional 3 (three) meters height. This provision shall be applicable to all categories of buildings, like residential, group housing, commercial, institutional, administrative, assembly etc. 60 - 76 - 44.2 Jharkhand Building Bye-Laws-2016 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 National Building Code of India as bye laws for ventilation shaft. 45 46. Height exemption of a building Any exemption to height shall not be taken in account in case of AAI approval. The following appurtenant structures shall not be included in the height of the building. 45.1 Roof tanks and their supports (with support height not exceeding 3 m.) 45.2 Ventilating, air conditioning, lift rooms and similar service equipment. 45.3 Stair cover (Mumty) or architectural features not exceeding 3.0m. in height. Exemption in Open space 46.2 46.3 46.4 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. A portico of up to 2.5 m, width and 4.6. m. length with a minimum height of 2.1 m. from the plinth level may be permitted within the side setback and leaving minimum 4.5m. from side boundary for buildings 15.0 m. and above in height. 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 neighboring plot. 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. No projected balcony shall be allowed, on setback less than 2.0m. Projected balcony shall be allowed with a width of 0.9 meters where the setback is between 2.0 meters to 2.5 meters. For setback more than 2.5 meters projected balcony shall be allowed with a width of 1.2 meters. Projected balcony shall only be allowed on the second floor and above floors. It may be allowed on first floor subject to condition that it shall not obstruct the clear vehicular and pedestrian movement around the building including movement of fire tender. 50% of the area on the projected balcony shall be taken into account for calculation of floor area. No balcony should be provided with fixed grill as it works as fire refuse areas. - 77 - 47

**48. Jharkhand Building Bye-Laws-2016 Mezzanine 47.**1 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. The mezzanine floor shall have a minimum clear height of 2.10 m The minimum size of the mezzanine floor, if it is to be used as a living room, shall not be less than 9.5 Sq meter. The aggregate area of such mezzanine floor in a building shall in no case exceed one- third the plinth area of the building. Basement/Cellar 48.1 48.2 48.3 48.4 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. Construction of basements/cellars may be allowed by the Authority in accordance with the provisions contained in the development plan applicable to the concerned area. The basements/cellars shall only be put to the following uses: 48.3.1 48.3.2 48.3.3 48.3.4 Storage of household or other non-combustible material Strong room, bank cellars library; Installation of air-conditioning equipments and other machines used for service and utilities of building; Parking. Individual residential and small commercial buildings, plot size up to 750sqm. may have one basement. However maximum two floor basements/cellars may be permitted to be constructed for plot size above 750sqm. leaving the prescribed set back/open space applicable to the building. Further, in case of apartment/group housing/ commercial/buildings and basements may be allowed to be constructed under the entire plot area leaving minimum of 3m. space from the boundary in front, sides and rear of the premises subject to the following; 48.4.1 48.4.2 In all such cases the owners have to indemnify the Authority against any damage caused by her/him/them to the adjacent property (

Form-Xlll (A)). The portion of the basement projecting out of the building line in the setback area shall flush with the ground or of a plinth not exceeding 0.9 m height, approachable with a ramp of I : IO gradient from the road level and the roof of such the basement in the open spaces areas, if intended to be used as -78- 48.5 48.6 Jharkhand Building Bye-Laws-2016 vehicular passage, should be designed to be able to take the load of fire engines/vehicles of 45 tones The basements shall be used exclusively for parking/services/storage or as permitted in 41.9 and 48.3 The basement shall fulfill the following requirements: 48.6.1 48.6.2 48.6.4 48.6.5 48.6.6 48.6.7 Every basement shall be in every part at least 2.4m. in height from the floor to the soffit of the roof slab or ceiling; and minimum of 2.1m below the soffit of beams. Adequate ventilation shall be provided for the basement. The standard of ventilation shall be the same as required by the particular occupancy according to bye laws, Any deficiency may be met by providing adequate mechanical ventilation in the form of blowers, exhaust fans (one exhaust fan for 50sqm. of basement area), air conditioning system etc; The minimum height of the ceiling of upper basement shall be 0.90m. and the maximum, 1.5 m. above the average surrounding ground level; Adequate arrangement shall be made, so that surface drainage does not enter the basement; 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; 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 bc permitted if they are constructed within the building line subject to provision of above

**49. Provision of Lift 49.**1 For Residential 49.1.1 For no. of flats more than 8 and up to 18, one lift of the capacity of 6 passengers will be mandatory for G+4 and above. - 79 - 49.1.2 49.1.3 49.1.4 49.1.5 49.1.6 49.1.7 Jharkhand Building Bye-Laws-2016 For every 16 flats and part thereof one lift of the capacity of 6 passengers shall be provided for residential buildings up to G+4 or of the height of 12 meters and above. However in case, where part thereof is less than 50%, then the requirement can be met by increasing the passenger capacity of lift. If the number of flats in a multistoried residential building is more than 12, the provision of lift will be compulsory for G+3, even if the height of the building is less than 12meters. The capacity and no. of lifts shall be as mentioned above. Provision of lift should be made for residential buildings of more than G+3 storied or buildings having the height of 12 meters , whichever is lower Provision of one stretcher lift every building more than 6 storey height Every lift should have Provision of automatic rescue device, door sensor and automatic fire proof door. 49.2 For Non-Residential: 49.2. I 49.2.2 49.2.3 Note: l. 2. 3

**4. Building above ground + 2 floor 1 person capacity per 500 sqm.**or fraction thereof of built- up area excluding ground floor and covered parking area Minimum number of lifts to be 2 for all non-residential building above ground + 3 and the minimum capacity shall be 6 persons per floor. All the lift requirements shall be subject to fire requirement. All sizes of lift (i.e. car inside, lift well, entrance, headroom etc.) shall be as per the requirements of N.B.C. or as per manufacturers specifications. 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 lifts. The area of lift well at one floor only (not the sum of total area of lift well at every floor) shall be counted for F.A.R calculation

**50. Barrier free access for the differently abled person 50.**1 Barrier free environment is one, which enables people with disabilities to move about safely and freely and to use all facilities within the built environment. The goal of barrier free design -is to provide an environment that supports the independent functioning of individuals so that they can get into and participate in all activities without assistance. - 80 - 50,2 50.3 50.4 50.5 50.6 50.7 Jharkhand Building Bye-Laws-2016 The main purpose is to integrate disabled and elderly persons fully into the society. In view of the above, the Government of India has enacted the Disabilities Act, 1955. Section 44, 45 and 46 of the said Act stipulates that the appropriate Governments, local authorities to ensure provisions of barrier free facilities in all new Government buildings and public utilities roads and transport. Also, in 1996 Government of India enacted another person with Disabilities (Equal Opportunity, Protection of Rights and Full Participation) Act for the Barrier Free Environment for differently abled persons, Site Development:- Level of the roads, access paths and parking areas shall be described in the plan along with specification of the materials, 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"). Finishes shall have non slip surface with a texture traversable by a wheel chair. Curbs wherever provided should blend to a common level. Parking:- For parking of vehicles of handicapped people the following provisions shall be made: 50.6.1 50.6.2 50.6.3 50.6.4 Surface parking for two car spaces shall be provided near entrance for the physically handicapped persons with maximum travel distance of 30 meter from building entrance. The width of parking bay shall be minimum 3.6 meter, The information stating that the space is reserved for handicapped persons shall be conspicuously displayed. 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. Building requirements:- The specified facilities for the buildings for handicapped persons shall be as fo lows: -81- 50.7.1 50.7.2 50.7.3 50.7.4 50.7.5 5007.6 Jharkhand Building Bye-Laws-2016 Approach at 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. Ramp 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 meter having 800 mm high hand rail on both sides• extending 3 00mm beyond top and bottom of the ramp. Minimum gap from the adjacent wall to the hand rail shall be 50mm. 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. Exit/Entrance Door: Minimum clear opening of the entrance door shall be 900mm 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. Entrance Landing: Entrance landing shall be provided adjacent to ramp with the minimum dimension 1800mm 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 colored floor material whose color 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. 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: -82 - Jharkhand Building Bye-Laws-2016 50.7.6.1 50.7.6.2 53.7.6.4 Guiding floor materials, shall be provided or devices that emit sound to guide visually impaired persons, The minimum width shall be 1250 mm, In case there is a difference of level, slope ways shall be provided with a slope of 1:12 Hand rails shall be provided for ramps/slope ways at a height of 800mm, 50.8 50.9 Stair ways:- One of the stairways near the entrance/exit for the handicapped shall have the following provisions: 50.8, I 50.8.2 50.8.3 50.8.4 The minimum width shall be 1350 mm. Height of the riser shall not be more than 150mm and width of the tread 300mm. The steps shall not have abrupt (square) nosing. Maximum number of risers on a flight shall be limited to 12. Hand rails shall be provided on both sides and shall extend 30mm on the top and bottom of each flight of steps. Lifts:- Wherever lift is required as per bye-laws, provision of at least one lift shall be made for the wheel chair user with the following cage dimensions of lift recommended for passenger lift of 13 persons capacity by Bureau of Indian Standards. The clear internal dimensions of the lift car shall be minimum of: depth- 1100mm, width- 2000mm and entrance door width- 900 mm, 50.9, 1 50.9.2 50.9.3 50.9.4 50.9.5 A handrail not less than 600 mm, long at 1000mm. above floor level shall be fixed adjacent to the control panele The lift lobby shall be of an inside measurement of 1800 mm x 1800mm or more. The time of an automatically closing door shall be minimum 5 seconds and the closing speed should not exceed 0.25 meter/sec. 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. The control panel shall have marking in Braille to help visually impaired. - 83 - Jharkhand Building Bye-Laws-2016

50010 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. 50.10.1 50. IO-2 50.10.3 50.10.4 The minimum size shall be 1500 x 1750 mm. Minimum clear opening of the door shall be 900mm and the door shall swing out. Suitable arrangement of vertical/horizontal handrails with 50mm clearance from wall shall be made in the toilet. The Water Closet seat shall be 50mm from the floor. 5L 52, 50.11 Drinking Water: Suitable provision of drinking water shall be made for handicapped near the special toilet provided for them. 50.12 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. Rainwater harvesting system 51.1 Provision of rainwater harvesting shall be mandatory for 300 sqmo and above size of plots-The dimension of recharging pits/trenches shall be at least 6 cubic meters for every 100 Sqm. of roof area. Percolation Pits shall be filled with small pebbles or brick jali or river sand and covered with perforated concrete slabs. Apart from this, the following requirements are optional and may be provided depending on site conditions. 51.101 51.1.2 Terrace Water Collection: The terrace shall be connected to a sump or the well through a filtering tank by PVC pipe. A valve system shall be incorporated to enable the first part of the rainwater collected to be discharged out or to the soil if it is dirty. A filtering tank measuring 0.36 Sq. m. can be constructed near the sump. The tank can be divided by a perforated slab and one part should be filled by small pebbles and other by brick jali, The bottom portion of the tank should have aslope' to avoid stagnation of water, Open Ground: Where there is open ground, a portion of topsoil shall be removed and replaced with river sand to allow slow percolation of rain water. Any other method proved to be effective in conservation and harvesting of rainwater may be adopted in each and every construction taken up. Signs and outdoor display structures 52.1 Signs and outdoor display structures shall be governed by the relevant provisions of the area where no specific guideline for the above structures is framed; the Authority shall prescribe the guidelines with approval of Government. — 84 — 53 54. 55

**56. Jharkhand Building Bye-Laws-2016 Lightening Protection 53.**1 To arrest Lightening, provision of lightening conductor is mandatory in the all types of buildings as per NBC-2005 norms, Penal Action against Buildersrrechnical Personnel 54.1 54.2 54.3 Not withstanding anything contained in these regulations, the Authority reserves the right to debar black list the builder/technical person who have deviated from the professional conduct or has made any fraudulent statement or has misrepresented/suppressed any material facts in his application/plan or is involved in construction of the building deviating from the approved plan/norms of these bye laws, Before taking any action under clause specified above, the Authority shall issue a notice specifying the reasons thereof asking for a show- cause within 15 days as to why such builder/technical person shall not be debarred/blacklisted. After receipt of the show cause, if any, the same shall be placed before the Authority for a decision on debarring/black listing the technical person/ builder. The decision of the Authority in this regard shall be published in the Notice Board of the Authority and the Govt. website. An appeal against an order under sub-clause above shall lie under sections of the Municipal Act/other relevant Act, Builder to register an association 55.1 55.2 The builder shall cause to register an Association of apartment owners as required under The Jharkhand Apartment Ownership Act, 2006 before occupancy certificate for minimum of 50% or more of the floor area is given. The builder shall enter into agreement with the apartment owners' Association/Society at the time of handing over of the apartment/premises. This agreement shall contain the terms of maintenance of common amenities which will include all the conveyances contained in the deed of sale to the owners of the flats. The maintenance period will be minimum of one year from the date of such agreement. The copy of the agreement shall be submitted to the authorities also before getting the occupancy certificate. Reference to the standards The following standards shall be referred while preparing the design of the building: 56.1 The standards relating to water and sanitation requirements for various occupancies and uses, shall be referred to as per section I of part-9 of NBC of India, 2005 group-5. - 85 - 56.2 56.3 Jharkhand Building Bye-Laws-2016 Construction of energy efficient building shall be referred to Energy Conservation Building Code, 2007 Guidelines for installation of solar water heating system shall be referred to as Annexure-ll

**57. Life Safety The building design shall comply to the provisions of life safety as mentioned in National Building Code 2005 (Group-I Part-TV Fire and Life Safety-4) or wherever applicable and the applicant shall reflect compliance of these provisions in completion certificate.**72 / -86 - 580 Jharkhand Building Bye-Laws-2016 CHAPTER - V ADDITIONAL REOUIREMENTS FOR SAFTEY

AND SERVICES For construction of Multi-storied building 58.1 58.2 58.3 58.4 58.5 58.6 Construction of multi- storied building shall not be permitted villages/ specified by the State wards/municipalities/planning areas Government. The Authority may include or exclude any other areas for prohibition of multi storied building from time to time. The Authority may restrict construction of multistoried buildings in any other area on the basis of objective assessment of the available infrastructure and planning needs after obtaining due approval of the Government. Before commencement of these bye laws, where permission has been granted conditionally, such cases shall be dealt with under corresponding provisions of these Bye laws without any major change, or removal of construction, subject to the condition where violation of Heritage Zone conditions has occurred, this relaxation shall not apply, No Condonation in parking requirements, fire fighting provisions, health and structural safety requirements in case of development of Multi Storied buildings shall be allowed, In addition to the provisions of Part 4 Fire and Life Safety of National Building Code of India 2005 (Group l), the Planning Authority may insist on suitable provisions in building from fire safety and fire fighting point of view depending on the occupancy and height of buildings in the case of Multi Storied building. The following shall be mandatory for the development of all Commercial and multi dwelling units including apartments: 58.6, 1 58.6.2 58.6.3 58.6.4 Land left for road widening/cul-de-sac should be paved and in matching level of the existing road. All drainage inside the plot should be covered and underground. All service pipes, PVC water tanks etc. should be concealed from all side. Lighting poles with lights within the boundary wall facing towards the road. One lighting poles with minimum height of 6mtr. at every 15mtr. or fraction thereof of the length of the front boundary wall shall be provided with 150 W of LED, facing towards the road for street lighting and should also be connected to the Generator. -87 - 586.5 58.6.6 58.6.7 58.6.8 5806.9 58.6.10 58.6.11 58.6.12 58.6.13 58.6.14 58.6.15 58.6.16 58.6.18 Jharkhand Building Bye-Laws-2016 Plantation—Number and type of plantation with the boundary along the road. One tree of suitable variety should be planted at every 6m. or fraction thereof of the length of the front boundary. Water harvesting system for recharge well shall be provided as per NBC norms. Solid waste disposal bins of suitable size inside the plot. Lifts, pumps, external lighting shall be connected to pollution free noiseless Generator. Minimum of 3 amp./fiat to be provided from pollution free noiseless Generator Lift shall be mandatory for above G+3 or as provided in this bye-laws and should be connected to power backup generator. All electrical power generators shall be noiseless & pollution free. Recycling of waste water shall be made mandatory for any building consuming more than 12000 liters per day or having 24 flats or more, whichever is lowere Service Ducts shall not be counted in the F.A.R. of building. No FAR should be added for parking for any floor except the lockup, garage. Minimum 50% of all paving around the building the driveway etc. should be soft paving in the form of interlocking, concrete block (without mortar or solid sub base) or such other systems to insure surface water percolation into the subsoil. Minimum 50% of bricks use in the building should be made of fly-ash If more than one storey height is covered with fiber glass or like materials which permits light, it should not be counted for covered area and FAR calculations. If covered with unusable/non accessible RCC roof, the covered atrium area will be counted for covered area calculation but not for FAR value. This is done to encourage better standard of planning for bigger shopping malls. Atriums open to sky or covered with the light weight roof member which permits light shall also not be -88 - Jharkhand Building Bye-Laws-2016 used for F.A.R calculations unless the roof top is used as a usable floor space. For ventilation of the spaces for water closets and bath rooms, if not opening on to front, rear , side or interior open space these shall open on to the ventilation shaft , the size of which shall not be less than as given in Table below, This shall be limited for natural ventilation only" Ventilation requirements can be met by the mechanical ventilation system like air conditioning etc, Toilets may be permitted without any exterior openings for the buildings like hotels, commercial complexes etc as per N,B.C, but not for apartments and residences. 59, 58.6.19 58.6.21 58.6.22 Maintenance Sl, 1 2 3 4 5 6 Height of Building U to 12.00 meter U to 16.00 meter U to 22.00 meter U to 28.00 meter U to 34.00 meter Above 34.00 meter Area 1.2 2.8 4.0 5.4 8.0 9.0 Mine Width (in meter 0.9 1.2 1.5 1.8 2.4 3.0 Provision of toilets for visitors, and separate toilets for guards and drivers Provision for harnessing Solar Energy for electricity shall be made in every building of more than 500sqme 59.1 59.2 59.3 59.4 In case of buildings with a height of 15.0 meters and above or ground coverage more than 500 sqm., the main entrance to the premises shall not be less than 5 (five) meters 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) meters, 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. Every access way shall be properly drained and lit to the satisfaction of the Authority. Manhole covers or any other fittings lay 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. Reconstruction, addition or alteration to any multi-storied building shall not be taken in a manner, which shall reduce the width of the - 89 -

**60. Jharkhand Building Bye-Laws-2016 access way to a level below the minimum prescribed limit under these bye laws.** Structural Safety Design, Standards and other Services requirements 60.1 60.2 All buildings shall comply with the standards as mentioned below: Structural Design: The structural design of foundation, elements of masonry, timber, plain concrete, reinforced concrete, pre- stressed concrete and structural steel shall be carried out in accordance with Part-6 of Group-2 structural design and related aspects, section-I loads, forces and effects] section-2 soils and foundations, section-3 Timber and bamboo, 3A timber, 3B bamboo, section-4 masonry, section-5 concrete, 5A plain and reinforced concrete, 5B pre stressed concrete and section-6 steel, section-7 prefabrication, systems building and mixed/composite construction, 7A prefabricated concrete, 7B systems building and mixed/composite construction of National Building Code of India, 2005 taking into consideration all relevant Indian Standards prescribed by Bureau of Indian Standards including the Indian Standard as given below for structural safety. In case of High Rise Buildings a Certificate of Under Taking for Hazard Safety Requirement shall be submitted in

Form-XIV. For General Structural Safety l. 2. 3. 4. 5. 6. 7. 8. 90 10. 110 IS: 456:2000 "Code of Practice for Plain and Reinforced Concrete IS: 800-1984 "Code of Practice for General construction in Steel IS: 801-1975 "Code of Practice for Use of Cold Formal Light Gauge Steel Structural Members in General Building Construction IS 875 (Part 2): 1987 Design loads (other than earthquake) for buildings and structures Part 2 Imposed Loads IS 875 (Part 3): 1987 Design loads (other than earthquake) for buildings and structures Part 3 Wind Loads IS 875 (Part 4): 1987 Design loads (other than earthquake) for buildings and structures Part 4 Snow Loads IS 875 (Part 5): 1987 Design loads (other than earthquake) for buildings and structures Part 5 special loads and load combination IS: 883: 1966 "Code of Practice for Design of Structural Timber in Building IS: 1904: 1987 "Code of Practice for Structural safety of Buildings: Foundation" IS 1905: 1 987 "Code of Practice for Structural Safety of Buildings: Masonry Wall IS 2911 (Part l): Section l: 1979 "Code of Practice for Design and Construction of Pile Foundation Section I - 90 - Jharkhand Building Bye-Laws-2016 For Earthquake Protection 60.3 60.4 60.5 60.6 12. 13. 15, 16. 17. IS: 1893-2002 "Criteria for Earthquake Resistant Design of Structures (Fifth Revision)" Is: 13920-1993 "Ductile Detailing of Reinforced concrete Structures subjected to Seismic Forces - Code of Practice" IS:4326-1993 "Earthquake Resistant Design and Construction of Buildings- Code of Practice (Second Revision)" IS: 13828-1993 "Improving Earthquake Resistance of Low Strength Masonry Buildings - Guidelines" IS: 13827-1993 "Improving Earthquake Resistance of Earthen Buildings - Guidelines", IS: 13935-1993 "Repair and Seismic Strengthening of Buildings - Guidelines" 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-i Building Materials and Part-7 of Group-3 Construction practices and safety of National Building Code of India. Alternative Materials, Methods of Design and Construction' and Tests: The provisions of these bye laws are not intended to prevent the use of any material or method of design or construction not specifically prescribed by these bye laws 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 bye laws. Building Services 60.6. I 6006.2 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 section I-Lghting and Group-4 Building Services, Ventilation, section-2 Electrical and Allied Installations, section-3, Air conditioning and heating, section-4 acoustics, sound insulation and noise control, section-S installation of lifts and escalators of National Building Code of India, 2005. The requirements of electric sub-station and the provision of electric sub-station shall also require approval from the concerned Authority, -91- 60.7 Jharkhand Building Bye-Laws-2016 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-i water supply, drainage and sanitation (including solid waste management) section-2 gas supply of National Building Code of India 2005. - 92 -

**61. Jharkhand Building Bye-Laws-2016 CHAPTER- VI GROUP HOUSING Housing Schemes 61.**l 61.2 61.3 61,4 6105 61.6 61.7 61.8 61.9 Minimum Size of the Plot Maximum Ground Coverage - Maximum F.A.R Height Limitation 3000 sqmo 3.0 61 No height limitation shall be applicable except in areas near protected monuments and airport, etc. Means of Access would be minimum of 6.1m with a provision of strip of land of 6.1m with along the side contiguously abatting the road, which shall be paved and in same level as of the existing road. FAR admissible such strip may be additionally utilized for same project. Playgrounds, Gymnasium, Community Hall, Retail Shops, Health Club, CCTV, 100% power backup (Excluding AC) Geysers, Sewerage treatment plant (STP) shall be provided. Internal access way of minimum 9.0m. width shall be provided within the campus to reach up to each block, Moreover, if plot is in new area and the internal access ways length exceeds 600 m. then it should be according to the provisions of Table 6. Provision of land and floor area for E WS & LIG shall be as per provision made in Jharkhand Municipal Act 2011 under section 427 At least 5% of the electrical energy requirement of the Group Housing Schemes shall mandatorily come from "Solar Energy". Provisions of Solar Water Heating System. 61.10 Under Group Housing Schemes buildings of G+4 and above may be built for E WS & LIG. For this type of construction density criteria shall not be taken in to account and for this purpose the developer shall provide Fire Fighting provisions, Lift and other Safety measures on mandatory basis. 61.11 Every developer, who builds, E WS & LIG housing as per prevailing norms, shall be entitled to F.A.R

equivalent to the floor area provided for such E WS & LIG housing. The concerned building plan will be sanctioned with condition that additional F.A.R would be utilized by the Developer only after completion of houses being built for E WS & - 93 - Jharkhand Building Bye-Laws-2016 LIG F.A.R admissible to the developer, as incentive, may also be used in the same/other new projects within the jurisdiction area of Municipal/Authority concerned. The incentive F.A.R would be in addition to maximum FAR as per rule 61.3 6L12 In all Group Housing and Group Development Scheme Projects, whose land extent is more than 5 acres (2.023 Hectares), the Developer/ Builder shall provide 15% of the total built up area towards the EWS or 35% of the total number of units of the housing project towards EWSe The option is given to the Builder/ Developer to provide either 15% of the total build up area or 35% of total number of units. Minimum plinth area of each E WS Unit shall be 30sqm. The following norms shall be adhered to: 61.12.] 61012.2 61.12.3 In case of Ranchi Municipal Corporation/Dhanbad Municipal Corporation areas, 15% of the total built up area or 35% of the total number of units towards EWS, shall be provided within the site or within the radius of 5 km. of the project site subject to fulfillment of these Rules, with regard to minimum width of access road and other parameters. In case of other Urban Local Bodies, 15% of the total built up area or 35% of the total number of units towards E WS shall be provided within the site or within the radius of 2 km of the project site, subject to fulfillment of these Rules, with regard to minimum width of access road and other parameters. In Case of Gram Panchayat areas falling in Urban Development Authority Areas and in sanctioned Master Plans, E WS units are to be provided in-situ only. 61.13 Two or more builders may be allowed to provide (with respect to proportionate area of the main projects) the specified number of E WS units as prescribed with all civic amenities but the occupancy for the main projects will be released only after completion of the E WS projects. Separate undertakings shall be obtained from the builders concerned by the Local body. 61.14 In case of Group Housing/Group Development Schemes, whose land extent is more than 3000 sqm. and upto 5 acres (2.023 Hectares), option of depositing shelter fee would be offered, which shall be collected as follows. 772065 - 94 - 61.14.1 61.14.2 61.14.3 Jharkhand Building Bye-Laws-2016 The following shelter fee to be levied: Area Ranchi Regional Development Authortity/Ranchi Municipal Corporation/Dhanbad Municipal Cor oration Other Munici al Cor orations Mango Notified Area Committee Jamshedpur, Ju salai Munici alit Other Municipalities, Nagar Panchayats and other Rural Local Bodies falling in Regional Development Authority Area (Except RRDA)/ UDA area/ Master Plan areas Rate fors m. Rs. 13,000.00 Rs. 11,000.00 Rs, 13,000.00 Rs. 8,000.00 The shelter fee shall be collected for 20% of total site area of the project. The shelter fee collected shall be utilized for development of EWS housing under Pradhan Mantri Awas Yojna (PMAY) or any other Urban Housing Scheme meant for EWS categories or for undertaking civic amenities in slums and weaker section colonies only for which a separate account shall be maintained by the local body/Urban Development Authority. The shelter fee can also be utilized for re-development/improvement/rehabilitation of slums under Pradhan Mantri Awas Yojna (PMAY) programme as local body share. 61.15 The projects below 3000 sqm. of plot area are exempted from reservation of built up area/number of units for Economically Weaker Section/Low Income Group as well as payment of shelter fee. 61.16 With regard to identification of beneficiaries and procedure for disposal of EWS/LIG units by builder/developer/public or private separate guidelines will be issued by the "Urban Agencies, Development and Housing Department". -95 - Jharkhand Building Bye-Laws-2016 CHAPTER -VII REOUIREMENT FOR SPECIAL OCCUPANCIES Semi-detached and row housing 62. 63. 64. 62.1 62.2 62.3 62.4 62.5 62.6 Owners of adjacent similar dimension plot abutting a road may be permitted to construct row or semi-detached buildings. The orientation of the row or semi-detached building shall preferably be such to ensure proper ventilation. 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. 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 row shall be 100 m. The minimum size of the plot on which a unit of arow housing may be allowed shall be 50 sqm. The height of such housing should not be more than 8.55m. Shop-cum-residence 63.1 Where plots are 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 meters 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 meters in height shall be allowed to be constructed as a shop-cum-residential plot, unless so permitted under the

zonal Development 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. Cinema, Multiplex and Theatre building.- 64.2 The relevant provisions of the Jharkhand Cinemas (Regulation) Act, 1954 or any other relevant act shal I apply for planning, designing and construction of Cinema and Theatre buildings. No permission for construction of a building to be used as a cinema hail, theatre or auditoria for cultural show shall be granted unless the construction of such buildings conforms to the provisions of the Jharkhand Cinemas (Regulation) Act, 1954 or any other law in the subject for the time being in force in the State. 6) — 96 _ 64.3 Jharkhand Building Bye-Laws-2016 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, Exits and fire safety requirements shall be in accordance with Part IV (Fire and life safety) of National _Building Code of India, 2005, 65

**66. Liquefied Petroleum Gas.**- 65,1 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. The minimum clear distance shall be as per Table 21, Table - 21: Minimum distances required for storage shed of liquefied petroleum gas cylinders Quantity of Compressed Gas in Minimum Clear Distance to be Kept C linders K . 0-100 101-1000 1001-4000 4001-8000 8001-12000 12001-30,000 Over 30,000 meters 1 3 5 7 9 12 15 65.2 Not withstanding anything contained in the conditions specified above, cylinders containing liquefied petroleum gas exceeding 100 Kilograms but not exceeding 300 Kilograms 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. Petrol Pump 66.1 66.2 66.3 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. The minimum distance of the property line of petrol pump from the centre line of the road shall not be less than 15 meters 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. Plot size:- A. Only for filling stations -30m x 20rn -97 - 66.4 66.5 66.6 66.7 66.8 Jharkhand Building Bye-Laws-2016 B. Filling-cum-service station 40 m x 30 m C. Frontage of the plot shall not be less than 30 m New petrol pump shall not be located on roads having less than 30 m width Every petrol pump shall have public toilets with W.C. separately for men and women. Other controls 66.6. I 66.6.2 66.6.3 66.6.4 66.6.5 Ground coverage FAR Max Height 20% 1.0 7m Canopy equivalent to permissible ground coverage within setback line, Front set back - minimum 9 m Other regulations 66.7. I NOC from Explosives/Fire Service Department 66.7.2 License from the District Magistrate 66.7.3 Ground coverage will exclude canopy area Compressed Natural Gas (CNG) mother station 67. 6608.1 66.8.2 66.8.3 66.8.4 Farm House Plot size (Max)- 36 m X 30 m Maximum ground coverage - 20% Maximum height-7m (single storey) Building component- control room/office/dispensary, store, pantry and W.C. 67.1 67.2 67.3 For construction of Farm House Building in Agriculture and Forest use Zone Minimum size of plot- Minimum size ofa plot for farmhouse shall not be less than I .00 hectare. Maximum coverage and FAR shall be as given in the table-22. Table 22: Maximum coverage and FAR B c D E Maximum permissible ground covera e for all t es of activit Maximum ermissible FAR Residential accommodation of watch and ward/maintenance staff Maximum hei ht Setbacks 0.20 40 sqms 7m. Front/side abutting road 15.0 m. and all other sides 9.0 - 98 - 67.4 67.5 67.6 Jharkhand Building Bye-Laws-2016 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. Water supply, Sewerage and drainage: 67.501 67.5.3 In case of a plot for a farmhouse having dwelling units, the owner thereof shall be responsible to make lawful arrangements for potable water. 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, 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. 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, - 99 -

**68. Jharkhand Building Bye-Laws-2016 CHAPTER-VIII DEVELOPMENT AND SUB-DIVISION OF LAND Application 68.**1 68.2 Applications for subdivision of land for utilizing selling, leasing out or otherwise disposing it off shall be made to the Authority in

Form-I. The applications for subdivision shall be in addition to the requirements specified in Bye laws-5.3.3 accompanied by i. ii. iii. iv. vie vii. viii. ix. x. A copy of the title deed of the land in question; An affidavit with regard to the right, title and interest of land and such other particulars as the Authority may require; An authenticated copy of the certificate with regard to the payment of development charges, if any. An authenticated copy of the receipt towards payment of fee to the Authority as prescribed under bye-laws-9.2; 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; 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; 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; A detailed plan to a scale not less than l: 1000 or as required by the authority showing the proposed layout (sub-division) indicating size of plot width of the proposed road, open space and amenities provided; 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; In case of land originally belonging to any religious endowments, a no- objection certificate from the endowment commissioner or board as the case may be. - 100- 68.3 6R4 Jharkhand Building Bye-Laws-2016 Where permission for sub-division of land is granted, such permission shall be communicated to the applicant in Form-VIII B within 60 days from the receipt of the application. Where permission for sub-division of land is refused such refusal, shall be communicated to the applicant in Form-IX, 69

**70. Use in relation to Development Plans 69.**2 69.3 69.4 Subdivision of land shall normally be permitted for the purpose for which the concerned land is earmarked in the development plano Such subdivision 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 development 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, 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, Subdivision of land for residential purpose in green-belt 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. The sub division shall conform to the proposals of the development plans, Size of the plot and road width 70.1 Minimum Road Widths for Subdivision in Residential Area: No sub- divided plot will be less than 50 sqm. However the Authority reserves the right to relax in special cases such as E WS housing. The size of the plot shall be according to the relevant sub-division of plot size in the zones as per Table-23e Table-23: Minimum road widths for sub division in residential area 1 2 3 Length of road in (m) Up to 250 Above 250 up 500 Above 500 to 1000 Min. width of road* * (m) 12.0 15.0 * *For E WS housing scheme, the minimum road width may be relaxed. Note All junction of service roads shall have sufficient weaving angle, In no case it shall be less than the space arrived at drawing a quadrant of a circle of 4.5m. radius at the edge of the actual road lines leaving the width of pedestrian walks (foot path) and the plot boundaries shall be rounded of by drawing a quadrant of the circle of 2.7m radius at the edge of plot boundaries (see - 101 - 70.2 70.3 7004 Jharkhand Building Bye-Laws-2016 figure). It can also be provided but cut in place of rounded corners is to be determined by the Authority. Commercial Business and Industrial-The maximum length permissible for different classification of roads in areas other than residential shall be as indicated in Table 24. No roads in these areas shall be less than 12m in width. Table -24: Minimum road widths for sub division in commercial and industrial Class of Road 1 2 3 area Width (m) 12 18 24 Maximum length ermissib/e m 200 600 Above 600 The width of the Master Plan roads shall be as per the width prescribed in the Master Plan. Alleys: Alleys shall be provided in commercial and industrial areas except where Authority may relax this requirement or when assured provision is made for service access such as off street loading/unloading and parking coexistent with and adequate for the use provided. The width of alleys where provided shall not be less than 6m. and no dead end alleys shall be permitted unless provided with an adequate turn around facilities. Junctions: The layout shall be provided at the junctions of roads in such a way that as far as possible all roads do meet at right angle, roads meeting at less than 450

shall not be permitted unless adequate arrangements for the circulation of traffic with desirable weaving length is available. Sub-division Bye-Laws for plots in Built-up area.-The sub-division of plots in existing built-up areas, in which the greater part has been developed as a business, industrial or residential area and which has been provided with all essential facilities like roads, water supply, sewerage, electricity etc. the norms as laid down in these Bye-law shall apply. If the area to be sub-divided is less than I acre or 0.4 hectare than the minimum width of roads and access ways for internal development shall be 6m. In case the plot faces a road less than 6m. in width, then the plot boundary at the front shall be set back, so that the distance from the centre line of road to the new plot boundary is not less than 3m. Note: If the area to be sub-divided is more than I acre in that case, the layout has also to be accorded by the concerned committee authorized by the Authority. If the area to be sub-divided is more than I acre or 0.4 hectare, 0 - 102 - 710 72. 73. 74. 75

**76. Jharkhand Building Bye-Laws-2016 then the minimum width of roads and access ways for internal development shall be 7m.**and shall be further subjected to the provisions of bye-law, In ease the plot faces a road less than 7m in width, then the plot boundary at the front shall be set back, so than the distance from the centre line to the new plot boundary is not less than 3.5m. Area for development 7 LI Apart from the provision for amenities and open spaces, the area for residential development shall be up to maximum of 50% of the total land area. Park and Open Spaces 72,1 Parks and open spaces shall not be less than 10% 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. Ifthe site is not utilized for which it is leased out within a prescribed period, it will be resumed back to the Authority. Community facilities 7301 Community facilities shall be provided minimum 10% of the plot area. Exemptions 74,1 74.2 74.3 In case of developable area for residential development is less than 50% 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. For layout over 10,0 ha, commercial land uses such as Business offices, shopping complexes and Retail up to 2-3% may be permitted, subject to provision of separate access. For residential development upto 0.30 hectare of land, the requirement of open space may not be insisted on. Submission of layout plan 75.1 The layout plan may be submitted for approval to Authority by the signature of the members of the concerned Society in lieu of Secretary/president of the society. Even a single member of the Society may apply with his signature, if he is authorized by all the members of the society for doing the same. Incentive for solar heating & lighting and waste water recycling Duly admissible incentive for installing Solar Heating, Lighting and Waste Water Recycling may be given by the Authority after assessing the installat@n. 0 - 103- 77, Jharkhand Building Bye,,Laws-2016 CHAPTER IX COMPOUNDING, PENALTIES AND COMPLIANCE Restriction on Compounding.- 77.1 77.2 77.3 Any deviation pertaining to unauthorized development shall not be compounded; 7.1.1 77.1.2 77.1.3 77.1.4 77.1.5 77.1.6 Where construction has been undertaken on Government land or land belonging to local body or land not owned by the person undertaking such development; Where development has been undertaken un-authorized within the prohibited limits of any ancient or archaeological monuments. Where such developments interfere with the natural drainage of the locality; Where development has been undertaken un-authorized over the area earmarked /approved for parking; and, Where road or drain whether public or private, whether constructed or natural, has been encroached. Where number of floors has been increased from permissible limit/sanctioned map. Subject to the provisions contained in sub bye law, the Authority shall have the power to determine such other circumstances under which compounding may be prohibited. The Authority may, either before or after the institution of the proceedings under the provisions of the Act compound any offence: 77.3.1 77.3.2 77.3.3 Where development has been undertaken without permission, but within the framework of use restrictions and the provisions of these bye laws applicable to the concerned plot; Where development has been undertaken in deviation of the approved plan, but within the framework of the use restriction and the provisions, norms, and stipulations of these bye laws; and The Authority may however compound deviations beyond the permissible norms of these bye laws up to 10% in respect of side, front and rear setbacks, 10% in respect to FAR and 10% in respect to height. Any deviation beyond the compoundable limit of 10% or addition of extra floor will not be allowed and will be subject to demolition of the - 104 - Jharkhand Building Bye-Laws-2016 offending areas/part of the building. The owner/builder shall carry out the demolition and take all precautions to ensure the structural safety of the remaining part

of the building and ensure that no damage is caused to life and property in any Compounding Rate 78, 79. 80. 81. 78.1 I 2 Compounding Rates for various categories shall be as per Table- 25; Table 25: Compounding rates Compounding fees (in Rs.) ers m. for the violated area Situations Where development has been undertaken without permission, but within the framework of use restrictions and the provisions of the Bye laws a licable to concerned lot Constructions beyond permission but within the limit of 10% as mentioned as in section-77.3.3 in bye-laws of the gross areas on all floor thus in violation beyond the permitted setback line or be ond the ermissible limit of FAR Residential/ Institutional 10000 15000 Others 15000 25000 For Height deviation additional compounding fees shall be levied @ Rs. 2500 per sqm. on the area of the top most floor which height is increased. Note:-Where development has been undertaken in deviation to the approved plan, but within the framework of use, restriction and the provision of norms and stipulations of these Bye-Laws. Fees as the provision made in sub-section-9.7,3, Compounding amount 79.1 At least 50% of the compounding amount shall be utilized for development of public utility services and protection of heritage sites and structures. System for monitoring 80,1 A system for monitoring shall be put in place by all authorities to ensure that the Bye laws are followed and prompt action shall be taken in case of violation of these bye laws. Telecom Tower Permission 81.1 Telecom Tower Permission with appropriate fees, should be obtained from the authority before erection on prescribed forms with certificate for structural safety from the competent Engineer. An application form for the erection of telecom/phone tower for obtaining N.O.C from Authority on form Annexure-I V. Fee shall be as per Jharkhand Communication Tower and Related Structure Policy, 2015. NOC shall be issued within maximum 60 days from date of application if relevant papers in order. Certificate of permission/NOC and related indemnity bond format shall be as per above mention policy, subject to approval from Airport Authority as and where required. '9 - 105-

**82. Jharkhand Building Bye-Laws-2016 CHAPTER - X E-GOVERNANCE AND SERVICE DELIVERY E-Governance 82.** 1 82.2 82.3 82.4 82.5 82.6 The State Government shall set up an integrated E-Governance system to be used by all the authorities. All the applications and the associated documents to be submitted to the various authorities under these byelaws shall be submitted through the E-Governance system. All notices shall be issued through the E-Governance system. The E-Governance system shall have an inbuilt reminder mechanism to approve applications wherever provisions have been made for approval within a specified time limit under these bye-laws. The E-Governance system shall periodically, generate reports of occasions where the Authorities have failed to perform their statutory duties within the prescribed time. The Authorities shall with their comments forward these reports to the State Government at periodic intervals specified by the State Government. Single Window Clearance shall be facilitated through E-Governance system. The contents of various forms used in this Bye-laws may be added/ modified for the purpose of "Ease of Doing Business" and or digitization/computerization/in process of installation of online approval system. - 106 -

**83. Jharkhand Building Bye-Laws-2016 CHAPTER - X1 AFFORDABLE HOUSING "Affordable Housing Project" shall mean housing projects where 35% of the houses are constructed for EWS/LIG category.**83.1 83.2 83.3 83,4 83.5 83,6 83.7 83.8 1 2 3 "Affordable Housing Units" shall mean dwelling units for E WS and LIG households only; Economically Weaker Section (E W S): EWS households are defined as households having an annual income up to Rs.3,00,000 (Rupees Three Lakhs) or state shall have the flexibility to re-define the annual income criteria as per local conditions in consultation with the Centre E WS House : An all-weather single unit or a unit in a multi-storied super structure having carpet area of up to 30 sqm. with adequate basic civic services and infrastructure services like toilet, water, electricity etc. Affordable housing shall consist of row houses, stand alone and multi storied low rise and high rise building. No Affordable Housing shall be permissible on plots of area less than 1500sqm. In order to facilitate affordable housing following deviations from Jharkhand Building Bylaws shall be permitted, Means of access Len h of road limitation 1 2 3 Maximum Length of the road in Meter ii U to 100m Exceeding 100 meter and upto 300 meter Exceedin 300 Minimum width of road of street in Meter Inclusive of assive Develo ment iii 3.6 meter 5.1 4.5 meter 6.6 6.6 meter 7.5 Minimum setbacks and hei ht of residential buildin s Building Height Upto G+2 Maximum-10m Average Depth of plot (In meters) ii Exceeding 15m & u to 33m Exceeding 33m & u to 45 m More the 45m Building Height Upto G+3 Maximum-12m Minimum Front set back (m) iii 3.0 4.0 4.0 Minimu Minimu Minimum m Front m Rear Rear set set back set back Building Height Upto G+4 Maximum-15m Minimu Minimum m Front Rear set

set back back (m) iv 1.8 3.0 3.0 m 3.0 4.5 4.0 m vi 2.0 3.0 4.0 vii 3.0 4.5 5.0 back (m) viii 2.0 3.5 5.0 - 107 - Jharkhand Building Bye-Laws-2016 83.9 Minimum side setbacks for residential buildin s Sl. 3 5 7 8 83.10 1 2 3 83.11 83.12 83.13 83.14 83.15 83.16 83.17 Average Width of plot (In meters ii Exceeding 15m & u to 27m Exceeding 27m & u to 39m Exceeding 39m & u to 45m More the 45m Building Height Upto G+2 Maximum-IOm Building Height Upto C,+3 Maximum-12m Building Height Upto GA-4 Maximum-IS m iii 1.5 2.0 3.0 3.60 1.5 2.0 3.0 3.60 1.5 2.5 3.60 4.00 vi 1.5 2.5 3.60 4.00 vii 2.0 3.0 4.50 5.00 viii 2.0 3.0 4.50 5.00 Minimum exterior open spaces around the buildings for all type of hi h rise buildin s unless otherwise s ecified Exterior open spaces to be left out on all sides in m. Height of the Building Upto (m) More than 15 and u to 18 More than 18 and u to 21 More than 21 front setback 6.5 7.0 7.5 Side and back 4.5 4.5 4.5 the height of Distance between the blocks shall not be less than 1/4th the building subject to minimum 4.5 meters. Parking: EWS: car parking for 50% of the units, balance 2 wheeler parking LIG & MIG: car parking for 100% of the units FAR permissible — 3.5 All Projections for Balcony shall not be part of Carpet Area and FAR. Affordable Housing shall be within following criteria-86.1501 EWS 86015.2 LIG Carpet Area- 30sqmo Carpet Area- 60sqm. Norms for Solar power and solar water heating shall not be applicable. Minimum Specification of Affordable Housing shall be as follows-Flooring and Skirting ( 100mm- ht) Flooring Wall Tiles/ Dado Living Room Dining Room Kitchen Bed Room Verandah Balcony Passages Lobb Toilet Kitchen 600mm height on latform EWS Ceramic Tiles (300mm x 300mm) Anti Skid Ceramic Tiles 300mm x300mm) Ceramic wall tiles (300mm x 200mm) LIG Ceramic Tiles (300mm x 300mm) Anti Skid Ceramic Tiles 300mm x300mm Ceramic wall tiles (300mm x 200mm) - 108 - Jharkhand Building Bye-Laws-2()16 Staircase Parking floor Wall work External Plaster Internal Plaster Kitchen Platform Windows Doors Sanitary ware CP Fittin s Plumbing External Paint Internal Paint Electrical I-lardware Fittings 4 Toilet 2000mm height Floor and skirting( 100mm) External (200mm thick) Internal 150/100mm thick) Width approx 525mm External-30mm thick Internal-25mm thick Ceramic wall tiles (300mm x 200mm) Kota/ marble/ concrete paver/ mosaic tiles Paver Tiles Red Bricks/ Conce Hollow Blocks/ Fl ash Bricks Conc. Hollow Blocks 20mm thick cement Plaster in 1:4 with ro er water roofin 12/15 mm thick cement Piaster in 1:6 Kota Stone with Stainless Steel sink 2 track Aluminium Anodised with 4mm thick glass Wooden Commercial Flush Doors White Vitrified/ orcelain As er ISI Mark PVC/uPVC/cPVC Pi es Cement Based Paint Oil bound distemper over a coat of Plaster of Paris Electrical work with copper wires in concealed PVC conduits, Provision shall be made for sufficient lighting and power points. Required switches and sockets, telephone and TV points. Each bedroom shall have min 3 Nos- 5 Amp points and INO- 15 Amp point, MCB as re uired Aluminium fittings including Aldrop, tower bolt, handles as er ISI fittin s Ceramic wall tiles (300mm x 200mm) Kota/ marble/ concrete paver/ mosaic tiles Paver Tiles Red Bricks/ Conce Hollow Blocks/ Fl ash Bricks Conco Hollow Blocks 20mm thick cement Plaster in with ro er water roofin 12/15 mm thick cement Plaster in Polished Granite Stone with Stainless Steel sink 3 track Aluminium Anodised with 2 track -4mm thick glass and and 1 track stainless steel mos uito mesh Wooden Commercial Flush Doors White Vitrified/ orcelain As er ISI Mark PVC/uPVC/cPVC Pi es Cement Based Paint Oil bound distemper over a coat of Plaster of Paris Electrical work with copper wires in concealed PVC conduits, Provision shall be made for sufficient lighting and power points. Required switches and sockets, telephone and TV points. Each bedroom shall have min 3 Nos- 5 Amp points and INO- 15 Amp point, MCB as re uired Aluminium fittings including Aldrop, tower bolt, handles as er ISI fittin s - 109- Jharkhand Building Bye-Laws-2016 Deep Bore wells/ Shallow wells/ Water Municipal supply Supply lines through Over head tanks Deep Bore wells/ Shallow wells/ Municipal supply lines through Over head tanks 83.18 3.1 3.2 3.3 3.4 3.5 3.6 3.7 General Building Requirements for 1.s.8888-1978. Component of Building Habitable Room Low Income Housing As per Requirement% (i) (iii) In case of oze roomed house mclucLug space for cook:ug Two roomed house of Elop',ug roof Kitchen (i} Cook',ug alcove serving cooking space Two roomed house Bathroom Combined and W.C Balcony Staircase Sto:eved Windrus storeyed or iVizcLug Straight more Strait Fligut Area Width Hetzbt Area Width Heizbt Avg. beigbt MIO. heizht (at eaves) Area Width Height Area Width Hetxbt Area Width Area Width Ares Width Hetzbt Vidtb Width Mn. tread Max rtser Width Width Mn. Tread riser 2.5 sq.:ut 2.4 mt. 26 mt. 6.5 2.1 mt. 26 mt. 2.6 2.0 mt. 2.4 sq.mt- 1.2 mt. mt. 3.3 1.5 mt. 2 4 mt. 1.2 sq.:ut 1.0 mt. 0.9 squt 0.9 mt. 1 MS sq-mt 10 mt. 0.9 0.60 0.75 20.0 cm. 0.75 0.90 :ut- (mm) 20 0 cm. Sores: thc clear hcad room 'hail bc mt. 3.8 30 PL'Xtb Lizht',ug 'i.-eutiLa•.ioz MLL. 30 from the zrouud Level (e) one — of tbe room floor area for dry 'bot climate (b) one sixth of the room floor area for vet-bot climate -110- Jharkhand

Building Bye-Laws-2016 CHAPTER - XII SAVINGS/REPEALS AND INTERPRETATION Repeal and Savings 84. 85, 86. 84.1 84.2 The Jharkhand Planning Standards and Building Bye Laws 2002 with all its amendments, any other building byelaws framed under Mineral Area Development Authority Act Industrial Area Development Authority Act and associated executive orders are hereby repealed, Notwithstanding such repeal, anything done or any action taken under the bye laws so repealed shall be deemed to have been done or taken under these bye laws; Interim Development Plan 85.1 85.2 The Authority may prepare Interim Development Plans (IDP) for newly included development areas including rayati land within a reasonable time frame so that development may not be held up in the name of pendency of Interim Development Plano Where such IDP has not been prepared, the general provisions of these bye laws shall apply without any zonal restrictions, The Authority shall ensure that resources for land acquisition and cost of land are mobilized or are likely to be mobilized within the time frame projected for implementation of such Interim Development Plans. Applicability of National Building Code 86.1 86.2 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 Bye laws or by any resolution of the Authority, the provisions of the National Building Code of India shall be mutatis mutandis, Words and expressions used in these bye laws, but not defined, shall have the same meaning as respectively assigned to them in the Act or respective Rules and the National Building Code of India, 2005 amended from time to time, -111- 87. 88

**89. Jharkhand Building Bye-Laws-2016 Prior Commitments If any Department of Government/Statutory Authority has given any commitment for a project under PPP with the prior approval of Government, but the building plan of such project has not yet been approved by the Authority as on date of enforcement of these Bye laws, such commitment shall be treated to be made under these Bye laws.**Decision of the Government to be final In case of any dispute in interpretation of these bye laws, the decision of the State Government shall be final. Relaxation and modification by the Government The Authority may recommend to the Government for relaxation/modification of any of the clauses of these Bye laws in the general interest of the public pertaining to projects/schemes developed by the Govt. agencies and the decision of the Government in this regard shall be finaL A Building Bye Laws Review Committee shall be constituted by the Urban Development and Housing Department for periodic review and reconsideration and necessary modification of these Bye Laws. -112- 1) ANNEXURE-I OULIFICATION, EXPERIENCE & COMPETENCE OF TECHNICAL PERSON ANI) BUILDER ARCIIITECI* A) B) C) Qualification & Experience:- The minimum qualification for an Architect shall be bachelor Degree in Architecture or equivalent, and registered with the Council of Architecture and not in arrears of subscription. Competence:- The Architect shall be competent to carry out the work related to the building permit as given below and shall be entitled to submit: i) iii) iv) All plans and information connected with the building permit subject to section-1 6.3. I Certificate of supervision and completion of all buildings, Preparation of sub-division/layout plans and related information connected with development permit of area upto 4 hectare. Certificate of supervision for development of land area up to 4 hectare, Duties & Responsibilities:- i) He/She shall be responsible for making adequate arrangements to ensure not only that the work is executed as per the approval plans but also in conformity with the stipulations of the National Code, 2005 and the BIS standards for safe and sound construction non-hazardous, functioning of the services incorporated in the building and for making adequate provision for services and equipment for protection from the fire hazards as per the stipulations of the National Building Code, 2005 in the buildings. -113- D) Registration Fee:- Architects registered under the Council of Architecture Act 1972 shall be entitled for a registration as a licensed technical personnel of Authority \Gthout paying any licensing annual fees for the same. This shall not be binding on registration of an Architect engaged for any specific purpose. However if they desire to be enrolled as lifetime licensee of the Authority , a lump sum payment of Rs. 1000/- (One Thousand ) shall have to be made to the Authority as a fee for such enrollment, so that Authority may be able to intimate them by post from time to time about the provisions of planning standards and building byelaws and other relevant information vvith amendments (if any ) in rules and byelaws of the Authority. But In case an architect enrolled as Authority licensee, violates any of the rules, regulations, byelaws and / or planning standards of Authority, for the time being in force , his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited 2) ENGINEER (B) Qualification and Experience:- The minimum qualification for an Engineer shall be Degree in Civil Engineering or equivalent. The qualification for licensing of Engineer will be corporate membership (Civil) of the Institution of Engineers or such Degree or Diploma in Civil or Municipal or Structural Engineering which make him eligible for such membership, of which is recognized by Union Public Service Commission for the post of an assistant Engineer. Competence:- The Licensed Engineers shall be competent to carry out the work related to the building permit given below and shall be entitled to submit: i) ii) All plans and information connected with building permit Subject to section- 16.3.2 Structural details and calculations of buildings on plot up to 500 square meters and up to three storied structure excluding basement/stilt. 6) -114- iii) iv) v) Certificate of supervision and completion for all buildings. Preparation of all service plans and related information, Issuing certificate of supervision for development of land for all area. C) D) Duties & Responsibilities:- i) He/She shall be responsible for making adequate provision as per the approval plans but also is in conformity with the stipulations of the National Building Code 2005 and the BIS standards for safe and sound construction non-hazardous, functioning of the services incorporated in the building and for making adequate provisions for services and equipment for protection from the fire hazards as per the stipulations of the National Building Code of India in the buildings. If he/she is found negligent in his/her duties and responsibilities the Authority may black-list an Engineer in case of serious defaults or repeated defaults The registration shall be liable to be revoked temporarily or permanently by the Authority in such eases of negligence and default. Registration Fee:- The fees for this purpose shall be Rs. 5000/- for one calendar 3)

year and it may be renewed in next calendar years by paying Rs. 1000/- to the Authority. But In case an engineer enrolled as Authority licensee, violates any of the rules, regulations, byelaws and or planning standards of Authority, for the time being in force, his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited. STRUCTURAL ENGINEER A) Oualification & Experience:- The minimum qualifications for a structural engineer shall be degree in Civil Engineering/fellow of the Intuition of Engineers (India) or e uivalent degree in Civil Engineer from -115- B) C) recognized foreign institution, with 5 year experience in structural engineering practice. Note — 5 years experience shall be relaxed to 2 year in the case of Post Graduate degree in Structural Engineering/ higher qualification. Competence:- The licensed structural Engineers shall be competent to prepare the structural details and calculations for all buildings and undertake supervision. In case of buildings having special structural features, as decided by the Authority, which are within the horizontal areas and vertical limits specified in Annex A of Part-11, A-2.2.1 (b) and A-2.4. I (a) of NBC 2005 they shall be designed only by structural engineers. Duties and Responsibilities:- i) ii) iii) iv) v) vi) vii) viii) To prepare a report of the structural design. To prepare detailed structural design, drawings and specifications and to prescribe the method and technique of its execution strictly on the basis of the National Building Code or relevant BIS specifications. To supply copies of structural drawings to the site supervisor. To inspect the works at all important stages and certify that the work being executed is up to the satisfaction of the Architect. To certify the structural safety and overall structural soundness of the building to the Architect. To advise the Owner/Architect/Engineer for arranging for tests and their reports for soil, building material etc. for his evaluation and design consideration. To prepare the revised calculations & drawings incase of any revision with reference to the earlier submission of drawing and design in a particular case. To submit the certificate of structural safety and over all structural soundness of building to Authority. -116- xi) In case of multistoried buildings and buildings of a special nature as identified by the Authority from time to time, the structural Calculations/Drawings shall be got vetted by Indian Institute of Technology/National Institute of Technology or any organization empanelled by the State Disaster Management Authority or the Building Construction Department. D) Registration Fee The fees for this purpose shall be Rs. 5000/- for one calendar year and it may be renewed in next calendar years by paying Rs, 1000/- to the Authority. But In case an structural engineers enrolled as Authority licensee, violates any of the rules, regulations, byelaws and/or planning standards of Authority, for the time being in force, his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited. 4) TOWN PLANNER A) B) Qualification & Experience:- The minimum qualification for a town planner shall be recognized Post Graduate Degree/Diploma in Town Planning and registered membership of I TPI and not be in arrears of subscription. Competence:- The licensed town planner shall be entitled to submit: i) All plans and related information connected with dcvclopmcnt of land of all areas including integrated township. ii) Certificate of supervision for development of land of all areas. C) Duties and Responsibilities:- He/she shall be responsible for making adequate arrangements to ensure not only that the work is executed as per the approved plans but also is conformity with the stipulations of the National Building Code, 2005 and the BIS -117- D) standards for safe and sound construction non-hazardous, functioning of the services incorporated in the building and for making adequate provisions for services and equipment for protection from the fire hazards as per the stipulations of the National Building Code of India 2005. Registration Fee .- The fees for this purpose shall be Rs. 5000/- for one calendar year and it may be renewed in next calendar years by paying Rs. 1000/- to the Authority. But In case an Town Planner enrolled as Authority licensee, violates any of the rules, regulations, byelaws and/or planning standards of Authority, for the time being in force, his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited. 5) SUPERVISOR/DRAFTSMAN A) B) C) Oualification and Experience:- The minimum qualifications for a supervisor shall be recognized Diploma in Civil or Architecture, or Draftsmanship in Civil or Architectural Assistantship plus 2 years experience in building design, construction and supervision. Competence:- The licensed supervisor/Draftsman shall be entitled to submit: i) All plans and related information connected with building permit for residential buildings on plot up to 100 sq. m. and up to two storeys, ii) Certificate of supervision for buildings as per (i). Duties and Responsibilities of Supervisor:- i) ii) To adhere strictly to the architectural and structural drawings/ specifications and written instructions of the structural Engineer and Architect/ Engineer. To follow the provisions of NBC, 2005 or BIS specifications as regards materials, components, qualitx

control and the process of construction. 0 -118- iii) iv) v) vi) vii) To bring to the notice of the structural Engineer and Architect/Engineer/any situation or circumstances which in his opinion are liable to endanger the safety of structure. He shall be in charge of site and responsible for supervision of the work. He shall ensure that all the works under his charge are carried out in conformity with the approved drawings and as per the details and specifications supplied by the Architect/Engineer. He shall take adequate measures to ensure that no damage is caused to the work under construction and the adjoining properties. He shall also ensure that no undue inconvenience is caused in the course of his work in the people in neighborhood. 6) D) Registration Fee — The fees for this purpose shall be Rs. 2000/- for one calendar year and it may be renewed in next calendar years by paying Rs. 500/- to the Authority. But In case an Supervisor/Draftsman enrolled as Authority licensee, violates any of the rules, regulations, byelaws and/or planning standards of Authority, for the time being in force, his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited. GROUP AGENCY i) When any Group or Agency comprising of qualified Architect /Engineer/ Town Planner is practicing, then the qualifications and experience, competence, duties and responsibilities and registration will be the combination of individual qualification and experience, competence, duties & responsibilities and registration as provided in Schedule It05. -119- ii) The Authority may also empanel public undertaking/agencies engaged in development work for quick execution of Government/Private projects within its jurisdiction. 7) Registration Fee The fees for this purpose shall be Rs. 10000/- for one calendar year and it may be renewed in next calendar years by paying Rs. 2000/- to the Authority. But In case an Group Agency enrolled as Authority licensee, violates any of the rules, regulations, byelaws and/or planning standards of Authority, for the time being in force, his enrolment in authority shall be cancelled and the enrollment fee of Rs. 1000/- charged initially from him shall be forfeited. BUILDER A) B) Qualification:- i) ii) iii) A person/ firm engaged in construction activities/ building activities in an urban area. A person or group of persons having qualification of Civil Engineering, Architecture and Town Planning. The Authority may classify the builders into different categories considering their experience, expertise and annual turnover. Registration/Renewal:- i) Registration of builders shall be done by the Authority, The registration shall be done in the prescribed forme The registration shall be valid for one calendar year and shall be renewable annually. The fee for initial registration of a builder shall be Rs. 75000/- and the renewal fee shall be Rs. 15000/- An application form for the registration of builders will be as follows:- -120- FORM OF APPLICATION FOR REGISTRATION OF BUILDER Paste passport size colour photo of applicant Attach one more colour of photo passport applicant with application 1 2 3 4 5 6 7 8 Name of the applicant (Builder/Firm Developer) Address of Applicant, issued by the officer, not below the rank of Civil SDO/SDM (a) Local Address (b) Permanent Address Academic/ Technical Qualifications (a) Builder/Developer (b) Name, Address and Technical Qualification the of Engineer Associated with should have builder/developer(Engineer recognized Degree/Diploma and 3 years minimum experience in civil building construction work). (c) Name, Address of Architect and Technical qualification (Architect associated with builder/developer should have Degree from recognized institution with 3 years minimum experience in civil building Planning work) Service Tax Registration Number and Latest return of service Tax In case of new builder/ developer, Service Tax registration must be submitted by him within 3 months from the date of making investment in construction of Building/Apartment etc. Current year Income tax return (Certified copy to be attached) Affidavit to be submitted at the time of registration by the Builder / Developer that he would submit Labour License either in his own name or in the name of Labour Supplier employed by the Builder for construction of that specific project within 3 months from the date of start of construction of the project Work Experience in Civil Construction work (if any) (a) If Building Construction has been done by the applicant, mention the B.C. No. and Passing Authority with details. (b) Year of Building Construction -121 - 9 10 11 12 13 14 (c) Name of Land Owner/ Building Owner if the Land/Builder is not belonging to Builder/ Developer by self and certified copy of Mutual contract/agreement to be attached for construction of the Building/Apartment over that land Character Certificate issued by the Deputy Commissioner/District Magistrate of period not earlier than 6 months Is any unauthorized construction case pending after the construction of the sanctioned building plan (If yes, mention its full details, Name of the Authority/Court, case no. and present status of case) Information to be submitted by affidavit. Annual Turn Over of not below 50 lacs rupees duly Audited by Chartered Accountant for the last three years. (Certified copy to be attached) Details of the Movable and Immovable

Property to be supported by affidavit containing that the concerned Developer/ Builder is having property of value not below than 50 lacs rupees. Is applicant registered for work in any department? (If yes, mention full details with Registration No.) Details of Registration fee by way of DD payable in favour the Authority. For 50,000/- in case of new registration & e 10,000/- in case of renewal. Cost of Application

Form 050.00 Only (Non-Refundable) C) Responsibilities:- Full signature of applicant with date i) ii) He/She/Firm shall engage a qualified Architect/Engineer/Town Planner to prepare plans, designs, drawings and specifications for execution of the works in accordance with the requirements of these bye laws. He shall not cause or allow any deviations from the approved drawings in the course of the execution of the project and shall bear responsibility for any irregularity • 122- iii) v) Yi) vii) viii) committed in the use and function of the building or its parts for which the approval has been obtained. He shall not commence the use of building or shall not give the possession to occupy the building to any one before obtaining the occupancy certificate from the Authority. He shall provide adequate safety measures for structural stability and protection against fire hazards likely form installation of services like electrical installation, plumbing, drainage, sanitation, water supply etc. whenever required under the bye laws- He shall provide adequate for safety and welfare of the construction workers at the construction site as required by labour laws. He shall submit the completion certificate and obtain occupancy permission from the Authority. He shall explain the construction design and its intended use as per approved plan, to the prospective purchaser of the premises under construction, 8) Contractor A) Qualification:- i) ii) ii) iii) A person/firm engaged in construction activities/ building activities in the State of Jharkhand/lndiae Availability of a) Ownership/proof of hire/lease. b) Equipment/ key technical personnel c) Credit facility/liquid assets. d) Bidding capacity of project. Any other relevant criteria required as per Standard Bidding Document (SBD) of the project. Registration with the BCD of Government of Jharkhand or C.P.W.D. or public sector undertakings. - 123- Annexure-II Guidelines for installation of solar water heating system Installation of Solar Assisted Water Heating System in Buildings: to ensure the implementation of the guidelines issued by ministry of non-conventional energy sources on accelerated development and deployment of solar water heating systems in domestic, industrial and commercial sectors. No new building in the following categories in which there is a system of installation for supplying hot water shall be built unless the system of the installation is also having an auxiliary solar assisted water heating system:- i) iii) iv) v) vii) Hospitals and Nursing Home Hotels, Lodges, and Guest _Houses, Group Housing with the plot area of 4000 sq m. Hostels of Schools, Colleges and Training Centres with more than 100 Students. Barracks of armed forces, paramilitary forces and police Individual residential buildings having more than 150 sq mo plinth area Functional Buildings of Railway Stations and Air Ports like waiting rooms, retiring rooms, rest rooms, inspection bungalows and catering units Community Centres, Banquet Halls, Barat Ghars, Kalayana Mandaps and buildings for similar use. A. Definitions (i) (ii) "Solar Assisted Water Heating System "Auxiliary back up" A device to heat water using solar energy as heat source. Electricity operated or fuel fired boilers/ systems to heat water coming out from solar water heating system to meet continuous requirement of hot - 124 (iii) (iv) "New Building" "Existing building" water, Such buildings of above said categories for which construction plans have been submitted to the Authority for clearance, Such buildings, which are licensed to perform their respective business, B, Guidelines for Installation of Solar Water Heating System i. ii. iii. 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. Existing Buildings: Installation of Solar Assisted Water Heating Systems in the existing building shall be made mandatory at thc time of change of use to above said category provided there is a system or installation for supplying hot water. Capacity: The capacity of solar water heating system to be installed on the building of different categories shall be decided in consultation with the local body. The recommended minimum capacity shall not be less than 25 It. per day for each bathroom and kitchen subject to - 125- 2. the condition that maximum of 50% of the total roof area is provided with the system. Specifications: Installation of Solar Assisted Water Heating System shall conform to BIS specification IS 12933. The solar collectors used in the system shall have the BIS certification mark. Auxiliary System: Wherever hot water requirement is continuous, auxiliary heating arrangement either with electric elements or oil or adequate capacity may be provided. A separate guide lines shall be issued for installation of solar plant, solar power backup and metering system by the Urban

Development and Housing Department. - 126- Annexure-III Maximum Permissible FAR for Different ULBs Sl. I 2 3 4 5 6 7 8 9 IO 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 Name of ULB Ranchi Municipal Corporation Dhanbad Municipal Corporation & MADA Area Chirkunda Nagar Panchayat Giridih Nagar Parishad Hazaribagh Nagar Parishad Jhumritilya Nagar Parishad Koderma Nagar Panchayat Chas Municipal Corporation Phusaro Nagar Parishad Chatra Nagar Parishad Bundu Nagar Panchayat Gumla Nahgar Panchayat Lohardaga Nagar Parishad Simdega Nagar Parishad Khunti Nagar Panchayat Ramgarh Nagar Parishad Dumka Nagar Parishad Basukinath Nagar Panchayat Deoghar Municipal Corporation Madhupur Nagar Parishad Godda Nagar Panchayat Pakur Nagar Panchayat Sahebganj Nagar Parishad Rajmahal Nagar Panchayat Mihijham Nagar Parishad Jamtara Nagar Panchayat Chaibasa Nagar Parishad Chakaradharpur Nagar Parishad Jamshedpur NAC Mango NAC Jugsalai Municipality Chakuliya Nagar Panchayat Saraikela Nagar Panchayat Adityapur Nagar Parishad Medininagar Nagar Parishad Hussianabad Nagar Panchayat Vishrampur Nagar Panchayat Maximum Permissible FAR Residential Commercial As per Master Plan 2.5 2.5 2.0 2.0 2.5 2.0 2.0 2.0 2.0 2.0 2.0 2.5 2.0 2.5 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.5 2.5 2.5 2.0 2.0 2.5 2.5 2.0 2.0 2.5 2.5 2.0 2.0 2.5 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.5 2.5 2.0 2.5 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 3.0 3.0 3.0 2.0 2.0 3.0 2.5 2.0 2.0 127 - 38 39 40 41 42 Garhwa Nagar Panchayat Nagar Untari Nagar Panchayat Manjhiaon Nagar Panchayat Latehar Nagar Panchayat Ranchi Regional Development Authority, 2.0 1.5 1.5 1.5 2.0 1.5 1.5 2.0 Ranchi Note:- (l) (2) As per Master Plan For other occupancy the FAR value shall be as per these Bye-laws. The FAR value may be altered/modified according to the respective up coming Master Plan of Towns. The Urban Development & Housing Department can altered/modified FAR value as and when required. - 128- I 2 3 4 5 6 7 8 9 IO 11 Annexure-IV Form For Mobile Tower Permission Name of the Firm Re istration of the Firm Details of land on which tower is to be installed (land related paper): (a) Photocopy of sale deed/lease (b) Photocopy of Khatiyan (c) Photocopy of Mutation (d Photoco of Rent recei t Land/Building Owner of Consent Pa er/ A reement Certificate satisfy that proposed tower shall be able to carr wind ressure, Proposed tower is not in a air traffic zone a certificate from Airport Authority has been attached for the same. A certificate that the concern building is capable of carrying load of the ro osed tower. Photocopy of structural design of ro ose tower, Height of the proposed tower shall be measured form ground floor of the building on which tower is oin to be installed. (a) If height is less than 40m. and outside 7km- than whether online application has been made or not. A oath with detailing out that in case of any objection/rejection correction measures shall be taken out by TSPs/1Ps. OR (b) If height is above 40m. and under 7km. then a certificate of SACFA/Airport Authority of India is available or not. Acknowledgement receipt has been enclosed or not by TSPs/IPs in context of self certificate produced before TERM CELL of DOT with regard to EMR. OR Photo - 129- Bank Draft No.---------- - 12 Affidavit enclosed or not by TSPs/IPs in context of self certificate produced before TERM CELL of DOT with re ard to EMR. Jharkhand Fee as per Communication Tower and Related Structures Policy, 2015 for 8m. height/more than 8m. hei ht Non refundable 0/2772 Name of Bank ---------- ----------Date ---------- - 130- Annexure V Inspection Checklist l)uring the Construction Construction Stage Plan check Commencement Foundation & Excavations Basement/ tanking Over site Drainage (before back fill) Super Structure Element All, specially structural calculation, fire safet , area of lazin Assessment of existing lintels, foundations, beams Trial Hole Check for encroaching trees, made up of round, etc Access for fire service Excavations (Depth/width, distance to tree & drain Movement of Joints, anti-heave protection, clearance to drain Pilin Steel Enforcement Ground Pre aration for raft Tankin for below round walls & floor Retainin wall Ground Floor re aration (hardcore etc.) Sus ended timber round floor re aration Pre cast concrete beams/floor (ventilation & DPC ) DPC DBM Gas Protection — landfill, radon etc Floor insulation Site level for disabled access Sewer branches to the site Draina e laid rior to covera e Ground percolations tests ( septic tanks and /or soak-awa s Excavated Soak-awa its Ex osure of main sewer Rerouting of main sewer/ relocation of main sewer Frame—concrete reinforcement or steel or timber Floor 'oists and beams and connections Construction at first floor level, eg block work and wall ties Construction at 211 and subsequent floor levels Dormer framework rior to boardin over Roof timbers, restrains stra s, bracin Roof breather membrane Staircase installed Vehicle Barriers/ba c/ As Per Buildin Plan Yes No Remark -131- Fire protection applied to mem bers Cavit barriers/fire sto in Fire dam ers and fire collars Means of esca e structural Super Structure Pre Plaster Completion S ace se aration & com artmentation Glazing O enin to conservatories etc Area of Glazin Thermal elements (cavit walls etc)

Access Sound insulation in walls, floors and stairs Insulation in walls and roof Bare walls, beams, lintels Fire door First fix electrical (dwellings onl ) Ventilation s stem Hygiene (sanitary convenience & washing facilities — i es etc Draina e water ti htness test Internal lighting, appliance (C02 emission rate DER/BER) Heatin s stem, incl thermostatic control Sound insulation test Gas ti htness test to flues Electrical installations dwellin s onl ) Combustion appliance & fuel system stora e Air leaka e test Hygiene (sanitary conveniences & washing facilities) Test of emer enc li htin and fire alarms - 132 - 1

**2. Annexure VI FORM FOR COMPLETION CERTIFICATE I hereby certify that the erection, re-erection or material alteration in/of building No.**or the development of land of Khesra no has been supervised City on/in Plot no according to the plans sanctioned, by me and has been completed on The work has been completed Dated vide on to my best satisfaction, the workmanship and all the materials (type and grade) have been used strictly in accordance with general and detailed specification. No provisions of the building Byelaws have been violated, no requisitions made, no conditions prescribed or orders issued there under have been transgressed in the course of the work. The building is fit for use for which it has been erected; re-erected or altered, constructed and enlarged. The land is fit for construction for which it has been developed or re-developed. I request that the occupancy certificate/development certificate for the premises may be issued. Signature of Licensed Architect/Engineer/Town Planner/Draftsman/Group Name of Licensed Architect/Licensed Town/Planner/Draftsman/Group (in block letters) Address of licensed Architect / Engineerrrown Planner/Draftsman/Group Dated Signature of the Builder/Owner/Applicant; Name: Address: Date: Registration no. In case the building has been constructed with deviation a statement of such Note- deviation together with line drawings indicating the extent of deviation shall be submitted along with the completion certificate, duly signed by the technical personnel and the builder/owner/applicant. - 133 - Annexure VII FORM FOR OCCUPANCY CERTIFICATE I hereby certify that the erection, re-erection or alteration of building Authority..... . . .. on the in on case Dated Mohalla/Bazar/Road on in .or Plot and the sanctioned vide Plan . ...Colony No. Street .City Engineer/ completed under Draftsman/Group. supervision of Licensed License Architect/ No. has been inspected by me and I declare that building conforms in all respect to the requirements of the Bye-laws. It is certified that the building is fit for occupation. Signature Office Stamp Office No and Date address of Authority of (Communication) Name, Designation - 134 - Annexure-VIII Information for Intimation of Completion of Work up to Plinth Level To, The Sir, The construction up to . Authority, plinth/column up been completed in Building to is plinth level has on in Plot accordance No . Ward... with dated your and in Road/Street permission accordance with the sanctioned plan. Yours faithfully, Signature of Licensed Architect/Engineer/Supervisor Name.... ... (In Block letters) Addresse Registration No. Date Signature of Builder/Owner/Applicant Name.. (In Block letters) Address • Registration No Date - 135- Item 1 Structural Safet Annexure-I X Checklist for Structural Safety As Per Buildin Non Yes No a licable Plan Remark by authorized l. Provide Desi n Basis Re ort as er the document 2. Provide description of Sub-structure and Super- structure as per the format given in the Ref(5&6) enclosed

**3. Provide brief Description of Structural System with sketches, images of drawing.**etc. with specific focus on Lateral load resistin s stem'

**4. Provide brief note on modeling, software used etc.**Clear mention whether infill / partition wall is idealized as art of lateral load s stem? 5. Provide the hei ht of buildin in meters

**6. Provide Ian dimensions of the buildin mt x mt E Loadin Details 7.**Provide followin EQ loadin details. a Zone Factor b) 1m ortance factor c Res onse Reduction factor d) Soil T e e) % LL considered in seismic f) Time Period in the horizontal X- direction (sec) g) Time Period in the horizontal Z-direction (sec) h) Total Seismic wei ht (sw) of buildin (kN) i) Static Base-shear in X-direction (as % of SW) j) Static Base-shear in Z-direction (as % of SW) k) Table of distribution for static base shear l) Max. deflection at roof level. mm) m) Max. inter store drift./ Hei ht Vertical Elements Details 8. Provide following data regarding Vertical Elements. a) Size of maximum loaded column b) Gravit load on max- loaded column c) Axial stress in max. loaded column (Gravit loads) d) Grade of max. loaded column e) Axial settlement in max. loaded column f) Axial settlement in min. loaded column g) % Base-shear resisted by all columns along X (static) h) 0/0 Base-shear resisted by all columns along Z static) D namic Anal sis 95 Provide followin data from D namic Anal sis a) Total gravity load on floating column ( rovide table if there are multi le floating Applicable representative - 136 - columns) b) Size and span of girders supporting floating columns c) Number of floors supported by floating columns d) Deflection of girder under column (from model) e) Deflection of girder under column (from s/s action) f) Specific details about floating columns on cantilever irders (Refer Table below) IO. Provide, if applicable, following data for eachcantilever. a) Cantilever s an b) Structural s stem c) Nature of usa e d) Maximum elastic deflection under gravity loads 11. Provide stability calculations for uplift and overturnin (model extraet in ease of model) 12. T ical desi n calculations for footin s 13, Typical design calculations for RCC columns Com osite Columns 14. T ical desi n calculations for RCC walls 15, Typical design calculations for RC beams (Or Steel Beams) 16, Typical design calculations for RCC Girders (Or Steel Girders/Truss) 17, T ical desi n calculations for Steel Bracin s 18, Provide a note on special provisions suggested for the buildin (like dam ers etc.) 19, Softco of model includin in ut and out ut. data from D namic Anal sis X-Participation Modes Mode I Mode 2 Mode 3 Mode 4 Mode 5 Mode 6 Mode 7 Mode 8 Mode 9 Mode IO Mode I I Mode 12 Mode 13 Mode 14 Mode 15 Frequency Provide followin Time Period in Sec Z-Participation Summation Provide Table for lateral deflections at Terrace Level in the followin format. Load Case Dxmax H/Dx Drift-x Dzmax H/Dz Drift-z - 137- Provide Corner displacements (mm) for Torsional Irregularity(along x-direction) in the following Load Case Eq-x WI-x Corner- Corner- I 2 format. Corner-2 Corner-4 Avg - x 0/0Max./Avg. Provide Corner displacements (mm) for Torsional Irregularity(along z-direction) in the following format. Load Case WI-z Corner- I Corner- 2 Corner- 2 Corner- 4 Avg-x Provide acceleration m values in the followin format. WL-x Ref S Max./Av WL-z DESCRIPTION OF SUB-STRUCTURE No. of basement Minimum clearance between outermost basement retainin wall and com ound wall Has a Shoring system been installed ? Submit sectional detail of the shorin s stem Give details of methodology used to resist uplift pressure due to ground water for tower portion as well as the ortion outside the tower. Descri tion of the foundation for the tower block Nature of Foundation SBC assumed T/s . mt. Sub- rade Elastic Modulus Intended Use of basements If rock anchors are used, are they grouted after installation and stressin ? Is structural steel used in the construction of the sub-structure? If yes, what are the measures taken for its fire roofing and corrosion resistance? Whether Ex ansion/ Se aration •oints rovided? Whether expansion joint/ separation joint continues throu h basement? If yes, detail at Basement level & retaining wall unction DESCRIPTION 0F SUPER STRUCTURE No, of Floors & hei ht of buildin in m Shape of Building, Plan, Elevation, Whether Symmetric in Elevation Maximum Ian dimension in either direction in m. - 138 Ratio of Ian dimension Typical Floor to floor height in m Maximum floor to floor height in entire hei ht of buildin in m. Aspect ratio ( Height of Building till Terrace / Minimum Dimension of Buildin ) T e of floor slab Avera e thickness of floor slab in mm Whether column are RCC, Com osite or In structural steel - 139- Annexure-X Construction Quality Checklist/Testing The materials to be tested on site include cement, water, aggregates for concrete, bricks and stones, soil for embankments, and aggregates for construction works. The list of materials to be tested on site is iven in the Table I below. Table 1 List of Materials Tested on Site Material SloN0. 2 3 4 5 6 7 8 9 IO 11 12 13 14 15 Cement Sand / Fine Aggregates. Water for Construction Works (can be tested in approved lab) Bricks Size Stone Coarse Aggregate for Concrete Work Soil/Earth/Sub-grade Material Granular Sub-base (GSB) Material Material for WBM / WMM Metal for BM/DBM/BC/Surface Dressing/MSS/Premix Carpet Binder for WBM Fine Aggregate for DBM/BC Lime Borrow Material Steel (to be procured directly

form manufacture along with test certificate - 140 - ANNEXURE-X1 Checklist of Occupancy As Per Buildin Plan Non Applicable Yes No a licable Item Number of floors Buildin hei ht 2,External Setbacks 3. Buildin Line, if an 4.Parkin s ace rovision 5. Abuttin road width 6. FAR 7, Covera e ercenta e 8. Tree Cover 9, Water harvestin structures IO, Land if re uired to be surrendered 11. Lift/s, water um s and stora e tanks 12. Internal roads / avin 13, Parkin areas and external li htin 14. Li htenin arrestors 15, Fire Fi htin installations 16, Lifts I T Water um 18. Drainage and arrangement for waste water and sewa e dis osal 19. Copy of agreement with the apartment Owners' Association/Societ 20. Implementation of Life Safety provisions as mentioned in National Building Code 2005 Grou -l Part-W Fire and Life Safet -4) 21 .NOC from Fire Service De artment ITEM Quality Checklists for Building Works As Per Buildin Plan Non Applicable Yes No a licable 1 EXCAVATION & PCC A, Pre Excavation I Construction Drawin s indicatin levels available at Site recautions taken 2.Pro er safet for site and ublic 3.Precautions taken for dewaterin and rotectin site from floodin 4, Dum in round established Settin out and levels as er drawin s 5 e Intermediate levels checked B. Post Excavation l, Characteristics of excavated strata noted and deviations informed 2. A ro riate shorin and shutterin done 3. Final excavation levels, surface ins eeted anda roved 4. Anti-Termite Treatment has been done ost excavation 2 PLAIN CEMENT CONCRETE WORKS A . Pre-concretin l, All levels and dimensions checked for correctness 2. Shutterin is as er Ian and has no a s in Remark by authorized representative Remark by authorized representative — 141 — between 3. All materials are of specified brand and rade B. Durin Concretin l. Mixing of concrete has been done as s ecified 2.Slump and other tests carried out as s ecified 3.Slump and other tests carried out as s ecified 40 Required number of Samples have been taken for carrying out slum tests, cube tests etc C. Post Concretin I Concreting has been done as per specified line and level 2 Curin has been done as s ecified 3 Com action has been done Pro erl 4 Remedial measures taken for removal of defects 3 ANTI TERMITE TREATMENT ATT I Chemicals for ATT are as er S ecifications 2 Chemicals in use are within the ex i date. 3 Sufficient quantities of chemicals are available at site for ATTO 4 Safety precautions have been taken for carr in out ATT and stora e of Chemicals 5 Record of consum tion maintained at site 4 BACKFILLING L Fillin material/ earth is as er s ecification 2 Anti-termite treatment has been carried out before commencement of backfillin 3 Filling has been done in layers of 300 mm, watered and com acted as er s ecifications 4 Pro er com action method has been ado ted 5 Fillin has been done to the re uired levels 5 REINFORCED CEMENT CONCRETE WORKS A. Pre-eoncretin I All s ecified materials available at site 2 Cement is of the required grade and not more than three months old. 3 Shuttering checked for Staging & Propping, line & level, dimensions cleaning etc and its ualit a roved 4 A lication of oil & rease carried out 5 Mixer/ Vibrator as specified available at site with adequate means to run them durin concretin 6 Cut-out & Sleeves/lnserted 7 Surface of reinforcement is clean and free from rust 8 Bars have been provided as per structural drawin s 9 Lap length & dowels provided as er codal rovisions IO Pin bars & chairs/cover blocks rovided as er re uirements 11 Tying of bars has been done Correctl 12 Service lines(Electrical, Plumbing, Others) if any, provided before commencement of concrete B. Genera/ Arran ement l. Availability/ Arrangement of pumps etc, ro er access & walkwa checked 142 - 2 Adequacy of vibrators/ needle includin diesel vibrator 3 Slum cone & test cubes made 4 Safety and health measures taken before commencement C. Durin Concretin I All necessary precautions taken before commencement of eoneretin 2 Samples of taken for slump, cube tests etc for each batch 3 Proper Compaction done and checks on Sta in & Scaffoldin carried out 4 Covering of green concrete carried out 5 Surface finish checked 6 Construction 'oints rovided D. Post Concretin I De-shuttering started on Vertical faces / Other faces carried out as er codal rovisions 2 Proper curing of concrete carried Out 3 Line& Level of surface cheeked for correctness 4 Defects, notified and removed 5 Cube and other test results will be intimated to the engineer in char e for further action 6 MASONRY, MORTAR AND PLASTER A. Pre-Masonr Work I Availability of material as per dail re uirement checked 2 Quality check for bricks/ blocks/sand/ cement carried out 3 Provisions kept for electrical and other services B.Durin masonr work I Checking for line/ level/ right an le carried out 2 Mortar checked for mix ro ortion 3 Pro er rakin of 'oints 4 Seismic bands provided as per zonal re uirements C, Post masonr Check cleaning of dead mortar and broken bricks/ blocks etc. 2 Curin carried out as er re uirements D. Plasterin /Pointin I Mortar for plastering as specified for each side of wall 2 ualit of cement and sand cheeked 3 Curin work done as er re uirement 4 Pre aration of surface E. Durin Plasterin I Mortar mixin in tra 2 Addition of water roofin com ound 3 Pro er rou hin of first coat 4 Check for collection of mortar S ills 5 Cleaning of dead mortar 6 Check of waviness 7 Check

for grooves/ drip moulds _ 143- 8 Application of cement slurry on concrete surface F. After Plasterin I Curing 2 Check for hollowness 3 Check for cracks 4 Check for diagonal 5 Lime wash after 3 days (within5 days in case of neeru application) 6 Safety and health measures 7 WATER PROOFING I Surface for waterproofing has been prepared and cleaned 2 Safety measures/ precautions taken before commencement of works 3 Specified type of water proofing Used 4 Specified material used for waterproofing S The material used was as per specification 6 Work has been carried out as per specifications by the department/ s ecialized a enc 8 IPS/TILE FLOORING AND DADO I Layout of floor checked and proper slopes for draining water are maintained specially in bath room and toilet. 2 Thickness bases at GL checked of different floor 3 Check for proper back filling under floor done 4 Metal/glass strips laid properly in IPS flooring 5 Curing of IPS Flooring done as per requirements 6 Dado provided as per required height 7 Cleaning and finishing done 9 PLUMBING & WATER SUPPLY I GI/CI/HDPE pipes etc. confirms to relevant IS codes 2 Pipes of required diameter and their fittin s used 3 Plumbing and Water Supply work carried out through a licensed lumber 4 Works done as ers ecification - 144 - 5 Plumbing and Water Supply works tested on com letion - 6 Defects rectified 10) INTERNAL ELECTRICAL WORKS A-GENERAL I Layout plans: showing the position of L.T Panels/ distribution board, lighting fixtures, lighting distribution, scheme, receptacles, etc available before commencement of work 2 All the following items are as per specification and of approved makes L T Panels/ Distribution Boards Lighting Fixtures Conduits, including accessories Receptacles Junction Boxes Cables/Wires An other item SURFACE CONDUIT WIRING / CONCEALED CONDUIT WIRING I Conduit and accessories are of specified make, gauge and diameter 2 Proper installation of all conduit wiring and concealed wiring. C, CHECK LIST FOR EARTHING 1 Earth electrode provided as s ecified. B. SURFACE CONDUIT WIRING / CONCEALED CONDUIT WIRING I Conduit and accessories are of specified make, gauge and diameter 2 Proper installation of all conduit wiring and concealed wiring. C. CHECK LIST FOR EARTHING I Earth electrode provided as s ecified B. SURFACE CONDUIT WIRING / CONCEALED CONDUIT WIRING 1 Conduit and accessories are of specified make, gauge and diameter 2 Proper installation of all conduit wiring and concealed wiring. C. CHECK LIST FOR EARTHING I Earth electrode provided as s ecified. CHECK LIST FOR EXTERNAL ELECTRICAL WORKS A. CHECK LIST FOR O.H. LINES I Poles used are of approved make as specified and conform to relevant BIS codes 2 Test certificate asa lieable. 3 Pole embedded below ground level as specified. 4 Metallic poles are adequately earthed with specified size of earth conductor. - 145- 5 Strays struts, insulators, conductors used conform to relevant BIS Code. , 6 Earth wire conductor used as s ecified 7 Lightning arrestors used as s ecified B. CABLE LAYING I Trenches of specified dimensions excavated and prepared 2 Required quantity of sand cushioning provided; cable laid; another layer of sand and brick protective covering provided. Refilling done earth ramming and dressin done 3 Cables entry point in building or crossing roads path protected by providing Hume pipes or PVC pipe 4 Cable tested before and after laying and before emerging C. CHECK LIST FOR EARTHING I Earth electrode provided as specified 2 Types and size of main/ sub main and circuit earthing conductors provided as specified. 11 DRAINAGE WORKS I Excavation for drains carried out as er thea roved la -out 2 Bed Concrete laid as per specifications with proper slopes and cuttings 3 All pipes procured and laid as per requirement 4 Jointing of pipes done as per specifications 5 Manholes rovided as er desi n 6 Materials for construction of manhole as s eeified 7 End of the i es lu ed 8 Drainage line tested before uttin to use 13 OTHERS I Whether the provision for adequate ventilation and natural lighting has been made as per National Building code? 2 Whether facility for storage in terms of Almirah/ Shelves / Lofts / Platform has been made ? 3 Whether Sanitary fittings have been rovided? - 146 - FORM-I APPICATION FOR LAND DEVELOPMENT Application No APPLICATION FOR DEVELOPMENT IRE-DEVELOPMENT OF LAND FOR OBTAINNG DEVELOPMENT PERMIT From Name and address (in Block letters) Tel No/ Mobile No Email id To Madam/Sir, I/ We hereby apply for permission Plot No(MSP) under Municipal Corporation/Municipal for office use only Regd Date Signature of Authorised Person to undertake development of land in rcspcct of plot Khata No Village/Mauza Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning -147- Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act. The said land shall be used for

purpose. I / We do enclose herewith the following plans (40pies in cases of privately owned plots/8 copies in case of Govt. leased Govt. plots) and specifications duly signed by me and Town planner Architect / Engineer /Supervisor / Group agency. .. bearing Regd No. ...License/Empanelment No.... ..... who has/have prepared the plans, designs etce and who will supervise the development. The parameters an checklist prepared by the Technical person are enclosed. I/ We the owner(s) of every part of the land to which the application related request for permission of the above development land which may kindly accorded. Documents furnished 1. 2. 3. 4. 5. 6. 7, 80 9. IO, 11. 12 Four /Eight sets of the layout plan: Ownership document: Supervision certificate in form-V: Affidavit for peaceful possession of the land: Certificate for Structural stability in form-TV: NOC form lessee in case of lease hold: NOC from fire Authority: NOC from Airport Authority: Environmental clearance: Details of Fee: Checklist: Any other certificate/ NOC(Please specify): Place: Date 9 Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yesmo/Not applicable Yes/No/Not applicable Yes/N0/Not applicable Yes/No/Not applicable Yes/No/Not applicable Signature of Owner(s) Name of Owner(s) -148- FORM-11 BUILDING PLAN APPLICATION FORM APPLICATION FOR PERMISSION TO ERECT/ RE-ERECT, DEMOLISH OR TO MAKE ADDITION OR ALTERATION IN A BUILDING From Name and address (in Block letters) Tel No/ Mobile Email id. To Madam/Sir, for office use only Regd No, , Date... Signature of Authorised Person I/ we hereby apply for permission erect, re-erect, demolish or to make addition or alteration an place in a building and carry out:- a) b) c) d) e) No storey(Stories) building Construction of . Re-construction of an existing building Alteration/ addition to the existing buildings Revalidation renewal of plan for construction of all Demolition . (if any other please specify) In respect of plot No.(CS)..... Plot No(MSP). Storied building .khata No Holding .. Viiage/Mauza .. ...Ward No of Municipal Corporation/ -149- the said land shall be used for. ..... .... . Municipal Council/Nagar Panchayats/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act / Group agency. .... ...bearing Regd No. purpose. I / We do enclose herewith the following plans (40pies in cases of privately owned plots/8 copies in case of Govt. leased Govt. plots) and specifications duly signed by me and Town planner Architect / Engineer /Supervisor License/Empanelment No who has/have prepared the plans, designs etc. and who will supervise the development. The parameters and checklist prepared by the Technical person is enclosed I/ We the owner(s) of every part of the land to which the application related request for permission of the above building plan may kindly be accorded. Documents furnished 2. 3. 4. 5 6. 8. 9. IO. 11

**12. Place: Date Four/ Eight sets of the building plan: Ownership document: Supervision Certificate in**

**form-V: Affidavit or peaceful possession of the land: Structural stability certificate: NOC from lease case of lease hold: NOC from Fire Authority: NOC from Airport Authority: Environmental clearance: Details Fee Checklist of the proposed building Any other certificate/NOC(please specify): Yes/No/Not applicable Yes/No[Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yesmo/Not applicable Yesmo/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Yes/No/Not applicable Signature of Owners(s) Name of Owner(s) -150- FORM-III CERTIFICATE OF EXECUTION OF WORK AS PER STRUCTURAL SAFETY REOUIREMENTS From To (Name and address of the applicant in block letters) With respect to the building work of erection / re-erection or for making alteration in the Plot building on in with respect of Plot No(CS) khataNo ..**of Municipal Corporation/Municipal Council/Nagar Ward No.. Village/Mauza Panchayat/Municipality/Notified Area Committee/Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act or within the Development Plan Area of purpose. I certify; -151- l

**2. That the building has been constructed according to the structural design and specification prepared by me, which incorporates the provisions of structural safety norms as specified in part 6 (Structural Design) of the national building code of India, 2005 and other relevant codes and the design complies with the Earthquake safety requirement.**That the construction has been done under my supervision and guidance and adheres to the structural drawings and specifications prepared by me and records of supervision have been maintained. Any subsequent changes or deviation from the structural drawings and specifications shall be the responsibility of the owner / builder. Name and signature of competent Technical Person Registration no. Date: Address: Name and Signature of Owner/Builder/Applicant Registration no. Date: Address: -152-

FORM-IV CERTIFICATE FOR STRUCTURAL STABILITY With respect to the building work of erection, re-erection or for making alteration with respect of Holdings No khata No Plot Plot No(CS) of Municipal Corporation/Municipal Council/Nagar Ward No Village/Mauza Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act. I certify that the structural calculations, plans and details including the relevant specifications of the building prepared by me, satisfy the structural safety requirements for all situations including natural disasters like cyclone & earth quake etc: as applicable under the Byelaws and stipulated under Part-6 (Structural Design) of the National Building Code of India, 2005 and other relevant codes; and the information given the in is factually correct to the best of my knowledge. I undertake the responsibility with regard to supervision of the work at each and every stage of construction of the structure, regularly to the effect that the building is being constructed conforming to the structural plan prepared structural calculations, plans and details including the relevant specifications of the building prepared by me. Authority/Government if the plan/ I will be responsible and liable for action by design contain misrepresentation or fraudulent information and the construction is made in deviation from structural calculations, plans and details including the relevant specifications of the building prepared by me or if there is any structural failure due wrong /unsafe structural design/ use of low quality material and/ or poor workmanship endangering the safety of inmates or public and the the structural stability of the building. Name and signature of competent Technical Person Registration no. Date: Address: Name and Signature of Owner/Builder/Applicant Registration no. Date: Address: -153- FORM-V FORM FOR SUPERVISION I hereby certify that development erectionl re-erection / demolition material alteration in/ of the building in respect of Plot No(CS) ..P10t No(MSP)..... Holding No.... ..... ... Village/Mauza..... ...../Ward No.. khata No.. of Municipal Corporation/Municipal CouncilNagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act shall be carried out under my supervision and certify that all the materials (type and grade) and the workmanship of the work shall be generally in accordance with the general and detailed specifications submitted along with and that the work shall be carried out according to the sanctioned plans. Signature of Empanelled Technical Person Name of the Technical Person with Registration number Address..... Date -154- L 2. 3. 4. 5, 6. 7, 8. 9, FORM VI CHECK LIST Name of the Applicant: Name of the Owner: Name of the Builder/Developer and Name of the Project: Ownership documents: Established/Non established Land Area As er Document As er Buildin Plan As er Possession Tenancy:-Lease hold/Free hold. If lease hold: (i) Name of Lesser: Purpose of lease: (ii) (iii) Duration of lease: Existing off site Physical Infrastructure: (a) (b) (c) (d) (f) Road Sewerage Drainage Water facility Availability of drain Telephone Electricity Nature of Construction: New Construction/Reconstruction/Addition/Alteration (i) Amount of fee deposited (ii) Covered area on all floors 10. Use applied Prescribed Land use in the development plan(if any) Whether permissible/not permissible/special consideration 11. (i) Whether first permission/Revised permission/Revalidation (ii) No of floor(s). .

**12. Contents of Buildings Plan: (i) Site plan (ii) Lay out plan -155- (iii) All floor plan (iv) Elevations Front/Rear/Right/Left/Cross section (v) Plan of foundation (vi) Septic tank and Soak pit (vii) recharging pit & Rain Water harvesting Plan (viii) Drain Section (ix) Schedule of doors and windows 13.**Approach road: (i) Nature of road (ii) Width of road As er site/ke Ian Site ins ection re ort (iii) Whether the approach road as shown connected to an existing public road in the site plane . (iv) Whether such connection is available in settlement sheets or Cadastral Map: Yes/No (v) If private, whether (a) transferred to the Authority: (b) indicated in the final settlement plan: Yes/N0 Yes/N0 (c) mentioned in the ownership document: Yes/No 14. Whether the plot is affected by proposed road/proposed drain/proposed lake/any other public use...

**15. Whether the plot is within 100meter/100-300 meter of State/ A.**S.I. protected monuments.. Whether the plot is within 200 meter radius of important buildings (i.e. Governor House, High Court, State Secretariat, Legislative Assembly) 16. Building Parameters: Category 1 Basement/stils mt ISt floors mt 211 floors mt 3r floors mt 4t floors mt Other Floors Society room Front set back Rear set back Left/Right side set back FAR Parking Requirement as er norm 2 Approved buildin Ian 3 Proposal 4 Remarks 5 -156- Hei ht Non of dwellin unit Po ulation densit No. of staircase No. of lift Rechar in it Fee de osited An other item Exemptions (i) height (ii) setback (iii) FAR 17. Whether falls in the Airport funnel zone... 18, Provision of proposed on site physical infrastructure (i) Water Supply:- (ii) Sewerage:- (iii) Drainage:- (iv) Electrical Installation:- 19e Clearance/Certificate produced (i) General Affidavit:- (ii) Structural Stability Certificate:- (iii) Form of Supervision:- (iv) NOC from Fire Authority:- (v) Undertakings with regard to quality construction/ Water Supply/Sewerage/Drainage/Waste disposal/firefighting (wherever applicable) Any other (specify) N:B: (RS Required and Submitted, RNS: Required not Submitted, NR: Not Required) 20, Involvement of Technical Person & Builder: (i) Architect/Engineer:- Name:- CoA registration no, (for Architects) Empanelment no: Signature (ii) Engineer/Structural Engineer:- (iv) Name Empanelment No: Signature Builder/Owner/Applicant Name: Registration no. Signature -157-

FORM-VII (A) FOR EMPANELMENT OF TECHNICAL PERSON (ARTCIIETECT, ENGINEER, STRUCTURAL ENGINEER, TOWN PLANNER, SUPERVISOR) 1. 2. 3. 5. 6. 7. 8

**9. Name (In block letter) Father's [Husband's Name.**Date of Birth.. Educational Qualification..... Professional Experience... ... Self-Attested passport size photo of the application .. ..4.Nationality Registration No. With Council of Architecture, New Delhi. .. o.. Registration with other relevant Institutions/ULBs Details of other Academic & Professional Achievements.

**10. Details of Certificate relating to qualifications/testimonials, if any as per column 5 & 6 with self attested copies.**.. .. ..... I I . Details of Bank Draft/Postal Order (separately for empanelment Rs. 500/..

**12. Permanent Address-.**..... . . 13, Address for Correspondence- 140 15, Email id- DECLARATION I hereby solemnly affirm and declare that thc information as furnished above are true and correct to the best of my knowledge and belief. I further undertake that if any information at any stage shall be found to be false, any my empanelment shall be liable to be cancelled without any prior notice in that regard and I shall not claim any compensation etc. for such a default on my part. In case of any discrepancies found later, I shall be liable for punishment under the relevant provision of law as also under Jharkhand Municipal Act-2011, Jharkhand Regional Development Authority Act-2002, Jharkhand Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act. Place.... ..... . Date.. Name and Signature of the Applicant Note:- Self Attested copies of supporting documents shall be submitted along with the form. -158-

FORM-VII (B) FOR REGISTRATION OF BUILDER To, The Authority Self-Attested passport size photo of the application 1 2, 3, 4. 5. 7. 8, 9. Name of the Firm Type of Firm-(Partnership/Company) (In block letters) Name of Partner/Directors..... (In block letters) Father's /Husband's Name..... Date of Birth... Registration PAN/DIN .6.Nationality.. Sales Tax No. , 10, VAT , 11. Income Tax Statement of Last Three consecutive Financial Year, 12, Category applied for,. , 13 Details of fee 14, Permanent Address.... ..... 15, Address for Correspondence - 16. Tele No,/M0bo 17. Email id DECLARATION I hereby solemnly affirm and declare that the information as furnished above are true and correct to the best of my knowledge and belief, I/we have not been barred for building construction activities by any competent authority and further undertake that if any information at any stage shall be found to be false, my registration shall be liable to be cancelled without any prior notice in that regard and I shall not claim any compensation etc. for such a default on my part. In case of any discrepancies found later, I shall be liable for punishment under the relevant provision of law as also under Jharkhand Municipal Act-2011, Jharkhand Regional Development Authority Act- 2002, Jharkhand Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act. Place Date Name and Signature of the Applicant Note:- Self Attested copies of supporting documents shall be submitted along with the form. -159- Smt / Shri a) b) c) d) a) b) c) d) f) g) h) i) j) FORM-VIII (A) FOR APPROVAL OF BUILDING PERMIT With respect to your Application No date permission is hereby granted in favour of, Memo No.... for Construction of a Reconstruction of , Alteration of ... building building . .building Alteration or additions in the existing building Institution of change of the use of building . (Specify) In respect of Plot No (CS).. Holding No. Village/Mauza.. ..P10t No Khata ..of Minicipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act to the following conditions/ restrictions. The land/ Building shall be used exclusively for . purpose and the uses shall not be changed to any other use without prior approval of this Authority. The development shall be undertaken strictly according to plans enclosed with necessary permission endorsement. Parking space measuring sq. m. as shown in the approved plan shall be kept open and no part of it will be built upon. The land over which construction is proposed is accessible by an approved means of access of m. width. The land in question must be in lawful ownership and peaceful possession of the applicant. The applicant shall free gift m. wide strip of land of the road in the name of the authority for the purposes as mentioned in these Byelaws. The permission is valid for period of three years with effect from the date of issue. Permission accorded under the provision cannot be construed as evidence in respect of right title interest of the plot over which the plan is approved. Any dispute arising out of land record or in respect of right/title/ interest after this approval the plan shall be treated automatically cancelled during the period of dispute. Any other conditions. Copy along with Smt. / Shri By Order Authorised Officer Date. . copies of the approved plans to Authorised Officer/ Authority -160- Memo No Date Copy with a copy approved plan forwarded to the Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayats for information. Authorised Officer/ Authority -161- FORM-VIII (B) FOR APPROVAL OF LAND DEVELOPMENT PERMIT With respect to your Application No. ... ... Smt / Shri for date... permission is hereby granted in favour of, a) b) c) d) f) g) h) i) j) a) For layout plan of land development b) Institution of change of the use of land (Specify) In respect of Plot No (CS) Plot No Khata No Holding No. Village/Mauza.. of Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act to the following conditions/ restrictions. The land shall be used exclusively for purpose and the uses shall not be changed to any other use without prior approval of this Authority. The development shall be undertaken strictly according to plans enclosed with necessary permission endorsement. Parking space measuring sq. m. as shown in the approved plan shall be kept open and no part of it will be built upon. The land over

which construction is proposed is accessible by an approved means of access of . m. width. The land in question must be in lawful ownership and peaceful possession of the applicant. The applicant shall free gift m. wide strip of land in the Muncipal Corporations/ Municipal Corporation/Municipal Council/Nagar Panchayat/ Municipality/ Notified Area Committee/ Regional Development Authorities/ Industrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 201 1, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act for the further widening of the road to the standard width. The permission is valid for period of three years with effect from the date of issue. Permission accorded under the provision cannot be construed as evidence in respect of right title interest of the plot over which the plan is approved. Any dispute arising out of land record or in respect of right/title/ interest after this approval the plan shall be treated automatically cancelled during the period of dispute. Any other conditions. Memo No.... ..... Copy along with Smt. / Shri By Order Authorised Officer Date.... ..... ... copies of the approved plans to Authorised Officer/ -162- Authority Date Memo No Municipal Copy with a copy approved plan forwarded to the Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayats for information. Authorised Officer/ Authority -163- FORM-IX FORM OF REFUSAL OF BUILDING PERMIT/DEVELOPMENT PERMIT From. Smt/Sri With respect to the Application No dated.. made by this office vide its letter No .. .dated.. , your reply to the objections has not been found satisfactory. Your application for permission to undertake building/land development on Plot No (CS).. ...Plot No (MSP) ..... ..... .....Khata Holding Noe Village/Mauza. .of Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act is hereby refused on the following grounds. 2 Two copies of the plans are retained in this office for record and reference and the rest are returned herewith. Memo No.... ..... ... Copy forwarded to the Authorised Officer/ Authority Date... ... .... .. Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayats for information. (K Authorised Officer/ Authority -164- From, To, Sir, FORM-X FORM OF NOTICE FOR COMMENCEMENT OF WORK (TO BE FURNISHED BY THE PLOT OWNER(S) AND THE BUILDER/DEVELOPER) (Name and address of the applicant in block letters) Plot No I/we hereby given of the erection of building in with respect of plot No (CS) Khata (MSP) .. Mohalla No / Ward No Village/Mauza Holding ..of Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area , ..to be Development Authority Act within the development plan area of letter in your given permission the commenced per as on Authority/empanelled Architect Under the supervision of dated no in accordance with the approval plan, Regd. No [Structural Engineer Yours faithfully, Name and Signature of Owner/Builder/Applicant Registration no. Phone/Mobile no.- Date: Address: -165- FORM-X1 PERIODIC PROGRESS REPORT (To be submitted by the Empanelled Structure/Architect/Engineer) From. To, Ref Madam/Sir, Authority approval letter No. . Dated.. I/we hereby certify that the construction of the building up to plinth level/ground floor roof slab level/ first floor roof slab level/second floor roof slab level.. ..of the building with respect of plot No (CS) . .....P10t No (MSP) Khata No.... ... Holding No.. Village/Mauza.. ...../Ward No. ..of Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area

Development Authority Act within the development plan area of . .. has been supervised by me/us and has been constructed strictly conforming to the sanctioned plan and structural design as per the provision of NBC,2005. The work has been done to my/our best satisfaction. All the materials used in construction of this building are strictly in accordance with BIS specifications and norms conforming to National building Code, 2005 covering all the safety factors including earthquake and cyclone. I/we will be responsible and liable for action by . ...Authority/Govt. if there is any structural failure and fire endangering the inmates and public. (i) Architect/Engineer:- Name:- CoA registration no. (for Architects) Empanelment no: Signature with date (ii) Engineer/Structural Engineer:- Name Empanelment No: Signature with date (iii) Builder/Owner/Applicant: Name: Registration no. Signature with date -166- FORM-XII MAINTENANCE OF REGISTER Slo i) Name and address of the applicant ii Date of receipt of application (iii) Date of permissioW Date of Submission of refusal with Date of Submiss issue/refus ion of al of notice occupancy of permission letter No. (iv) commencement v) complet ion vi) with letter no, (viii) Remarks (ix) (x) -167- FORM-XIII (A) INDEMNITY BOND FOR BASEMENT The indemnity Bond is executed by Shri/ Smt... woo. .. ...in favour of ..S/o, D/o, W/o Shri /Smt. Authority. Whereas the Executant has submitted to the concerned Authority the plans for sanction of basement over Plot No(CS) Plot No(MSP)..... Village/Mauza. ... .... . . ../Word No.... . khata No Holding of Municipal Corporation/Municipal Council/Nagar Panchayat/Municipality/Notified Area Committee/ Regional Development Authorities/lndustrial Area Development Authorities/Mineral Area Development Authority, Gram Panchayat areas covered under Development Plan or Planning Scheme notified under Jharkhand Municipal Act 2011, Jharkhand Regional Development Authority Act 2002, Mineral Area Development Authority Act, Jharkhand Industrial Area Development Authority Act within the development plan area. under the provisions of the building Bye laws made there under whereas the concerned Authority has agreed to sanction the aforesaid construction subject to the conditions that the owner shall indemnity 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 as 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 there to, And whereas the executants has agreed to execute an indemnity bond to the above affect and also to abide by the terms imposed by the concerned... ... ... Authority the grant of sanction for construction of the basement. Now the deed witnesses: 3. That in consideration of the sanction of the plans by .. ...Authority for construction of the basement the executant undertakes that he/she shall at all times keep.. Authority 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. 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 construct ion of the basement by the owner of the consequences flowing from the said sanction the executant shall be responsible and liable and not . ..Authority. 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 -168- Witness: 4. 5. 1, 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 there of and also in respect of the costs and expenses which the concerned Authority may incur on defending any action. Without prejudice to the above undertaking the executant hereby binds itself to pay to Authority to the full extent any amount which Authority may be required to pay to any person in connection with relating to or concerning the sanctioning or the basement o the making thereof. The owner agrees and undertakes that this bond shall remain in full force and effect till the executant faithfully observes/ performs the undertaking here in before contained. In witness where of the executant above named day of has signed this bond on this at Indemnifier Name and Signature of Owner/Builder/Applicant Registration no. Phone/Mobile no.- Date: Address: Name Full Address Date (Signatures) 2. Name Full Address Date (Signatures) -169- Hind, District Board or Acquired Land. That the land stated above is a tribal land / not a tribal 3. permission for transfer has been obtained vide Case No. from SAR / DC / Commissioner Court. FORM-XIII (B) AFFIDAVIT 1 faith Resident of do hereby solemnly affirm and declare that the made herein below are true to the best knowledge and belief. Sworn & Signed this Affidavit on this the by statements 1. That 1

Plot No Mauza am the Owner / Power of Attorney Holder of land having R.S./M.S. khata No. Khewat No. Thana No. corresponding to holding No. Ward No. of name of the Authority .., measuring an area of situated at Village / P.S Name of the Place That the land mentioned above is a freehold property and does not belong to 2. Khas Mahal Estate of Government. It is not either Gair Mazarua Aam Khas, Kaisare land for tribal land; Year 4

**5. That I have applied a building Plan vide B.**C. Case No. That further declare that in future, if it will be found that property mentioned above are Gair Mazarua Aam Khas, Kaisare Hind, District Board or Acquired Land property of Govt. the sanctioned map will be deemed to be cancelled due to misrepresentation and suppression of facts. 200 at Name of the place Deponent Identified by : (Advocate, Name of the place day of -170-

FORM-XIV CERTIFICATE OF UNDERTAKING FOR HAZARD SAFETY REQUIREMENT To, of Proposed work REF:- in ward No. R.S.N0 . ... ...of Scheme No... project) C.S.No./ of (Title at village/Mauza village/ Town/City

**1. Certified that the building plans submitted for approval will satisfy the safety requirements as stipulated under Building Bye-laws 59 and the information given there in is factually correct to the best of our knowledge and understanding 2.**It also certified that the structural design including safety from hazards based on soil conditions shall be duly incorporated in the design of the building and these provisions shall be adhered to during the construction as per Annexure-IX & X. (ii) Engineer/Structural Engineer:- Name Empanelment No: Signature with date (iii) Builder/Owner/Applicant Name: Registration no. Signature with date -171-