# HIMACHAL PRADESH HOUSING & URBAN DEVELOPMENT AUTHORITY, NIGAM VIHAR, SHIMLA-171002

In exercise of the powers conferred by section 52 of the Himachal Pradesh Housing and Urban Development Authority Act, 2004 (Act No.9 of 2004), Authority hereby makes the Himachal Pradesh Housing and Urban Development the following bye-laws, namely:-

#### **PART-I**

#### **PRELIMINARY**

- **1. Short title- commencement and application** (1) These bye-laws may be called the Himachal Pradesh Housing and Urban Development Authority (Erection of Building) Bye-Laws, 2017.
- (2) These shall come into force at once.
- (3) These bye-laws shall apply to all schemes framed by the Himachal Pradesh Housing and Urban Development Authority.
- **2. Definition-** (1) In these bye-laws, unless the context otherwise requires:-
  - (i) "abut" a building is said to abut on the street when the outer face of any of its external walls is on the street boundary;
  - (ii) "Act" means the Himachal Pradesh Housing and Urban Development Authority Act, 2004;
  - (iii) (a) "ancillary zone in the residential area" means a zone of building attached to and serving the main residential building, and shall include garage, store-room, fuel store and servant quarters, but shall not include a guest house capable of use as independent dwelling unit;
    - (b) "ancillary zone in Industrial Area" means a zone of building ancillary to and serving the main industrial building and shall include Administrative Office, Godown, Cycle shed, Dispensary, Canteen, Electric Sub-station and quarters for watch and ward staff, but shall not include residential accommodation for superior staff;
  - (iv) "applicant" means a person who gives notice to the Competent Authority to erect or re-erect a building and also includes his legal representatives and authorized agent;
  - (v) "Architect" shall have the same meaning as assigned to it in the Architect Act, 1972 (Act No. 20 of 1972)
  - (vi) "architectural control sheets" means the sheets of drawing with directions approved by the Chief Executive Officer and kept in its office showing the measure of architectural control;
  - (vii) "Authorized Officer" means an Officer of the Authority specifically authorized by the Authority to perform certain functions under these byelaws;

- (viii) **"balcony"** means a cantilevered horizontal projection from the wall of a building without any vertical support and having a balustrade or railing not exceeding 1.0meter in height and intended for human use;
- (ix) "Barsati" shall mean a habitable space on the roof of the building with/without toilet facilities;
- (x) "Base" applied to a wall or a column, means the underside of that part of the wall or the column which immediately rests upon the footing or foundation or upon any bressumer or other structure by which such wall or column is carried;
- (xi) "basement" means storey which is next below the ground storey or which has in any part more than half of its height below the main level of the street of ground adjoining the building;
- (xii) "building' means any structure constructed for whatsoever purpose and of whatsoever materials and every part thereof whether used as human habitation or not and includes foundation, plinth, walls, floors, roofs, chimneys, plumbing and building services, fixed platforms, verandah, balcony, cornice or projection, part of a building or any thing affixed thereto or wall gap to be given enclosing or intended to enclosed any land or space and signs and outdoor display structures but shall not include tents, shamianas and tarpaulin shelters;
- (xiii) **"building line"** means a fixed line specified for a site beyond which no building within that site other than a compound wall shall project;
- (xiv) "class of building" means a building in one of the following four categories:-
  - (a) residential building;
  - (b) commercial building;
  - (c) warehouse and industrial building; and
  - (d) public building;
- (xv) "canopy" means a cantilevered projection from the face of a wall over an entrance to the building at the lintel level; provided further that;
  - (a) it shall not exceed 5 square meters in area;
  - (b) it shall not be lower than 2.3 meters when measured from the ground;
  - (c) it shall not be allowed at more than one entry;
  - (d) it shall not extended 1.8 meters beyond the building line; and
  - (e) there shall be no platform underneath it;
- (xvi) "chhaja" or "sun shade" means a sloping or horizontal structure over hang usually provided over openings on external walls to provide protection from sun and rain;
  - (xvii) "competent Authority" means any person or officer appointed by the State Government, by notification, to exercise and perform all or any of the powers and functions under the Act;
  - (xviii) "commercial building" means a building used wholly or partially for shops, offices, banks or other similar purposes but shall not include industries and motor garages;

- (xix) "courtyard" means an area open to the sky within the boundary of a plot, which is enclosed or partially enclosed by building, boundary walls or railing and provides light and ventilation to one or more habitable rooms and it may be at ground floor level or any other level within or adjacent to a building;
- (xx) "Engineer" means a person holding any of the qualifications recognized by the Institute of Engineers (India), Civil Engineering Division for its associate membership and registered as such with an Authorized Officer of the Authority, whether employed for supervision of construction or for the preparation of structural drawing or both;
- (xxi) "erect or re-erect any building" includes;
  - (a) any material alteration or enlargement of any building;
  - (b) the conversion by structural alteration into a place for human habitation of any building not originally constructed for human habitation;
  - (c) the conversion into a more than one place for human habitation of a building originally constructed at one such place;
  - (d) the conversion of two or more places of human habitation into greater number of such places;
  - (e) such alteration of a building as affects an alteration of its drainage or sanitary arrangements or materially affects its security;
  - (f) the addition of any rooms, buildings, out houses or other structure to any building; and
  - (g) the construction in a wall adjoining any street or land not belonging to the owner of the wall or a door opening on such street or land.
  - (xxii) **"Escalator"** means a power driven, inclined, continuous stairway used for raising or lowering passengers.
  - (xxiii) "external wall" means an outer wall or vertical enclosure of any building not being a party wall even though adjoining to a wall of another building and shall include a wall abutting on an interior open spaces of any building but shall not include an outer verandah wall;
  - (xxiv) **"factory or industrial building"** shall have the same meaning as assigned to it in the Factories Act, 1948);
  - (xxv) **"floor area ratio"** or **"F.A.R."** means the quotient obtained by dividing the multiple of the aggregate covered area on all floors and hundred by the area of plot i.e. F.A.R: <u>Total covered area x 100</u>;

Plot Area

- (xxvi) "framed building" means a building the external walls of which are constructed of a frame of timber, iron, reinforced cement concrete or steel and such framing consisting of posts or columns and beams, filled in, wholly or partially covered with bricks, stones, iron plates, or other materials; and the stability of which depends upon such framing;
- (xxvii) "front" as applied to a building means the portion facing the street from which it has access;
- (xxviii) "garage" means a building or portion thereof used or intended to be used for shelter, storage or parking of a wheeled vehicle;
- (xxix) "green space" means the space which has to be kept green forever and in which no construction shall be allowed;
- (xxx) **"ground floor"** means the storey which has its floor surface nearest to the ground around the building;
- (xxxi) "habitable room" means a room constructed or adopted to be used by some person either as a living room in which some person may pass the night and shall include a kitchen but not include a bath room, water close or store room;
- (xxxii) "height" in relation to a building means the vertical measurement of the building measured from the plinth level up to the highest level of the building parapet, excluding flues, ducts, water storage tanks and mumties, domes, water cooling tanks, lift towers, lift rooms not exceeding 2.25 meters in height, and in relation to a room mean the vertical measurement from finished surface of the floor to thunder surface of the ceiling of the room and in the case of sloping ceiling, the height shall be the minimum height of any room;
- (xxxiii) "Lift" An appliance designed to transport persons or materials between two or more levels in a vertical or substantially vertical direction by means of a guided car or platform. The word 'elevator' is also synonymously used for 'lift'.
- (xxxiv) "lobby" means a covered circulation space;
- (xxxv) "loft" means an intermediate floor in between two main floors not less than 1.2 meters in height which may be adopted or constructed for storage purposes and at a height of not less than 2.25 meters from floor level:
- (xxxvi) "mumti" means a small structure erected on the roof of a building at the head of a staircase to protect such stair case from weather.
- (xxxvii) "mezzanine floor" means an intermediate floor, between two floors, above ground level with area of mezzanine restricted to one third of the area of the lower floor and with a minimum height of 2.3 meters and shall not be lower than 2.3 meters above floor level;
- (xxxviii) "material change of use" means a change from one class of building to another;
- (xxxix) "party wall" means a common wall partly constructed on the plot of land, and partly on an adjoining plot and serving both structurally;
- (xl) **"parking space"** means an area to park vehicles meant either for private parking or public parking;
- (xli) **"plinth level"** means the level of the ground floor of a building with respect to the adjoining ground or street;

- (xlii) **"private parking"** means parking space used or provided exclusively for the parking of private vehicles in places other than public places
- (xliii) **"premises"** shall mean messuage; building, lands and easements of any tenure;
- (xliv) "public building" means a building used or constructed or adopted to be used, either ordinarily or occasionally as a place of public worship, as a hospital, college, school, hotel-restaurant, theatre, public hall, public concert room, public lecture room, public exhibition hall or as a public place of assembly or entertainment for persons admitted thereto by tickets or otherwise, or used or constructed or adopted to be used either ordinarily or occasionally for any similar public purposes;
- (xlv) **"public parking"** means a parking space used or provided exclusively for the parking of vehicles by the general public;
- (xlvi) **"Public sewer"** means a sewer constructed by State Government or Himachal Pradesh Housing and Urban Development Authority or local authority;
- (xlvii) "Rain water pipe" means a pipe or drain situated wholly above ground and used or constructed to be used solely for carrying off rain water directly from roof surface;
- (xlviii) "residential building" means a building used or constructed or adopted to be used wholly or partially for human habitation and includes all garages, stables and other out buildings appurtenant thereto;
- (xlix) "registered Architect" shall mean an 'architect' holding qualification as prescribed in the Architects Act, 1972 and registered with Council of Architecture, New Delhi;
- (1) "site" mans a parcel (piece) of land enclosed by definite boundaries;
- (li) **"Special area"** means the area shown as such on the zoning plans is which architectural control sheets shall apply;
- (lii) "storey" means any horizontal division of a building so constructed as to be capable of being used as a living apartment, although such horizontal division may not extend over the whole depth of width of the building, but shall not include mezzanine floor;
- "street" means any road, footway, square, court, alley or passage (liii) accessible whether permanently or temporarily to the public and whether a thoroughfare or not and shall include every vacant space, notwithstanding that it may be private property and partly or wholly obstructed by any gate, post, chain or other barrier whether of houses, shops or other building abutting thereon, which is used by any person as means of access to or from any public place or thoroughfare whether such persons be occupiers of such buildings or not, but shall not include any part of such space which the occupier of any such building has right at all hours to prevent all other persons from using as aforesaid, and it shall include also the drains or gutters therein or on either side and the land whether covered or not by any pavement, verandah or other erection up to the boundary of any abutting property not accessible to the public.

- (liv) "structural audit of buildings" structural audit is an overall health and performance checkup of a building. It ensures that the building and its premises are safe and have no risk. It analyses and suggests appropriate repairs and retrofitting measures required for the buildings to perform better in its service life. structural audit is done by an experienced and licensed structural engineer.
- (lv) "structural wall" means a load bearing wall or a wall that carries load in addition to its own load;
- (lvi) **"sub soil drain"** means a drain used or constructed to be used solely for conveying to any sewer (either directly or through another drain) and water that may percolate through the sub-soil;
- (Ivii) "temporary building" means a building built of un burnt bricks, burnt bricks without mortar, corrugated iron sheets, bamboo, thatch, wood, boarding or plywood but shall not include a building built of burnt bricks, cement blocks or stones laid in mortar and, in no case, it shall be allowed to stand three months beyond the validity of the sanctioned plan expires;
- (lviii) "warehouse and industrial building" includes a factory, a workshop or a mortar garage; and
- (lix) "zoning plan" shall mean the detailed layout plan of the sector or part thereof as approved by the Competent Authority showing the subdivision of plots, open spaces, streets position of protected trees and other features and in respect of each plots, permitted land use, building lines and restrictions with regard to the use and development of each plot in addition to those laid down in the building bye-laws;
  - (2) All other words and expression used in these byelaws but not defined herein shall have the same meaning as assigned to them in the Act.

#### **PART-II**

# PROCEDURE FOR SUBMISSION OF BUILDING APPLICATION AND EXECUTION OF WORKS.

- **3. Application for erection or re-erection of building**-(1) Any person excepting those mentioned in bye-laws-8 intending to erect or re-erect any building shall make an application in writing to the Competent Authority in Form-A accompanied by the following documents:-
  - (a) a site plan as required by bye-laws-5; and
  - (b) a building plan or plans as required by bye-laws-6.
- (2) Every person making an application under sub-bye-law(1) shall appoint a registered Architect for the drawing up of plans. However, the supervision of erection or re-erection of the building may be undertaken by an Architect or Civil Engineer.

- (3) The building plans and specifications shall be signed by the applicant and the registered Architect. In case, where the supervising Architect/Engineer is different from the one who has prepared the designs, the plan shall be signed by both of them.
- (4) The application shall be accompanied by a fee or scrutiny fee as given in the **Annexure-A** of these byelaws.
- (5) A refundable security amounting to Rs.1000/-only shall be deposited by the applicant with the building application. This amount will be refunded to the applicant after construction of the building and after satisfying the Competent Authority or his representative regarding clearance of the site and removal of debris there from.

#### 4. Preparation of zoning plans and passing of building plan:-

The Competent Authority may constitute Committee for;

- (a) preparation of zoning plans; and
- (b) passing of building plans;

Entrust such Committees with such powers and functions as it may deem proper.

- **5. Site Plan-:** (1) The site plan shall be drawn to a scale of not less than:-
  - (a) 1 to 200 for sites up to 1000 square meters;
  - (b) 1 to 500 for sites above 1000 square meters and up to 4500 square meters; and
  - (c) 1 to 1000 for sites above 4500 square meters.
- (2) The site plan shall be prepared with sufficient accuracy to enable the site to be identified and shall be submitted in quadruplicate. All copies shall be on ammonia prints. The site plan shall show:-
  - (a) the boundaries of the site;
  - (b) the directions of north point related to the site;
  - (c) the street or road adjoining the site with their width clearly dimensioned and names if any, all existing road side trees, lamp post, or other features or structures likely to affect the approach to the building;
  - (d) surrounding buildings in outlines within a distance of fifteen meters from the boundaries of the site;
  - (e) all existing buildings or structure on, over or under the site or projecting beyond it, in outlines besides distinctly indicating the proposed building or building;
  - (f) the area and proportions of the site to be covered by building including existing buildings, if any;
  - (g) dimensions of open spaces on the front rear and the side of the building;
  - (h) the levels of the site and of the plinth of the building in relation to those of the neighbouring streets, also the levels of all court yards and open spaces in relation to the bed levels of the existing drain

sewers in the street or streets into which the building or site is to be drained:

- (i) method of disposal of waste water, sewerage and storm water;
- (j) position of water supply;
- (k) provision of rain water harvesting tank with size & capacity, and
- (l) any other information that may be required.
- **6. Building Plans:-** (1) The building plan or plans shall be drawn to a scale not less than that given below:-
  - (i) 1:100 for plots up to 1000 square meters in size; and
  - (ii) 1:200 for plots over 1000 square meters.
- (2) The building plans shall be submitted in quadruplicate. All the copies shall be ammonia prints.
  - (i) the plans of all the floors, at least two elevations and two sections (longitudinal and cross) illustrating distinctly all the different levels through floors, staircase, water closet, bath, kitchen and garage, covered area on each floor along with area of plot shall be indicated. Out of 2 no's. sections, one must be through staircase.
  - (ii) only one residential unit is allowed on each floor.
  - (iii) the plinth level of the building with reference to the level at the centre of the street or streets on which the proposed building is to abut;
  - (iv) the schedule indicating the sizes of the doors, windows openings and other method of ventilation of each room;
  - (v) the means of access to the building and its various storey's together with the means of escape in case of fire;
  - (vi) in the case of proposed addition and alteration to an existing building, all new works on the plans by indelible distinctive colors with a key to the colors used;
  - (vii) the proposed method of drainage, including the position forms and dimensions of all privies, urinals, drains and the method of disposal of sewerage and storm water in full details; and
  - (viii) north point related to the plan of the building.

**NOTE**: In case of large buildings various blocks of the building may be drawn on separate sheets.

**7. Drawing to be submitted with application**:- Every application and building plan shall be accompanied by its water supply, drainage and structural drawings showing:-

- (a) position of sanitary fittings, down pipes, gully traps, house sewer and manholes up to their connection to the public sewer;
- (b) position of taps, shower, storage tank, water supply pipe and distributing pipes:
- (c) prescribed structural stability certificate duly signed by owner, Architect registered in Council of Architecture, structural Engineer (B.E. or equivalent), and.
- (d) provision of solar passive to be kept.
- **8. Type plans** In case the applicant wishes to follow type(standard) design of a building approved by Authorized Officer, he may obtain the same from the Competent Authority on the payment of prescribed fee as mentioned in **Annexure-A**. Such an applicant need not get the building plans sanctioned from the Competent Authority; provided he constructs the building strictly in accordance with the standard design. He shall, however, have to obtain formal permission from the Competent Authority for starting construction of the building and shall also intimate date of commencement of construction of building to him.
- **9. Information necessary to validate applications:** No application under the byelaw 3(1) shall be considered to be valid, unless it is made on **Form-A** and is accompanied by the requisite number of plans and documents together with scrutiny fee as mentioned in **Annexure-A.** In case of failure of such compliance, the application together with plans shall be returned to the applicant for re-submission in accordance with these bye-laws.
- 10. Permission to erect or re-erect building:- After an application for permission to erect in Form-A containing the required information and accompanied by necessary documents and scrutiny fee as mentioned in Annexure-A is received, the Competent Authority shall, after making such enquiries as he may consider necessary, pass an order either sanctioning or rejecting it and convey the same to the applicant in Form-B(for sanctioning) and through office letter for rejection.
- 11. Validity of sanctioned plan- If a building has not been started within two years of the date of permission, the permission shall be deemed to have lapsed with respect to that portion of the building which was not completed. In regard to the incomplete portion, a fresh application along with the sanctioned set of plans together with scrutiny fee as mentioned in **Annexure-A** of these bye-laws shall be submitted.
- **12. Occupation certificate**:- (1) Every applicant on completion of the building shall give notice of completion in **Form-C** along with revised building plans as per construction done on site duly verified by Executive Engineer/Assistant Engineer concerned. The photographs of the constructed building must be enclosed.
- (2) The Competent Authority shall within thirty days from the date of receipt of the application shall either issue the occupation certificate or reject the application giving reasons for such rejection in **Form-F**:

Provided that the applicant shall remove, or destroy any temporary building which have been erected and, the debris from the site and adjoining roads or vacant site before the occupation certificate is issued;

Provided further that partial occupation certificate may be granted for partially constructed building with one habitable room, one water closet and one bath room.

#### PART-III

#### ADMINISTRATIVE CONTROL

- **13.** Power of Competent Authority to sanction or refuse erection or re-erection of building:- (1) The Competent Authority shall refuse to sanction the erection of any building if it is in contravention of any of the provision of these bye-laws.
- (2) The Competent Authority may sanction the erection or re-erection of any building either absolutely or subject to such modifications in accordance with these bye-laws as it may deem fit and one copy of the mounted plans shall be sent to the applicant with the word "sanctioned" written on it.
- (3) The intimation of sanction of the building plans shall be given in **Form-B** and rejection through office letter.

#### **PART-IV**

#### PLANING AND ARCHITECTURAL CONTROL

- **14.** Use of site type and character of building:- (1) Type and character of the building including ancillary buildings that may be erected or re-erected on a site and the purpose for which these may be used shall not be other than shown in the approved zoning plan.
- (2) Every building that may be erected or re-erected on a site shall, in addition to the foregoing restrictions, comply with the restriction shown on the zoning plan. The Architectural/Frame Control Sheets, wherever applicable, shall have precedence over the zoning plan or the building bye-laws.
- (3) Except as otherwise expressly provided at the time of sale, not more than one building unit shall be erected on any one floor of a building on a site.

**Note:** "Building Unit" means a self contained building with such out buildings as are ordinarily ancillary to the main building used in connection therewith and physically incapable of sub-division into two or more independent building unit. A building unit may, however, be owned by an individual or be jointly or severally owned:

Provided it remained in a single indivisible ownership.

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15. Proportion of the site which may be covered with buildings:- The proportion up to which a site may be covered with a building including ancillary building shall be in accordance with the zoning plan prepared by the Authority and the remaining portions of the site shall be left open in the form of an open space around the building or a court yard subject to the following slabs:-

#### (A):-Residential:-

- (a) Coverage and offsets:- The Coverage and offset shall be in accordance with the approved layout-plan of the scheme;
- (b) No. of storey's;
  - (i) the number of storey's allowed shall be four with provision of either parking floor or parking provision in permissible coverage or garage inside offset whichever is applicable as per zoning plan prepared exclusively for each scheme.
    - (ii) If garage is permissible in side offset the servant qtr. may be allowed above if indicated in zoning plan.
    - (iii) Porch is allowed in the side offset if prescribed offset is 3.00 meter wide.
    - (iv) The height of one floor can be 2.70 mtr.(minimum) & 3.30 meter.(maximum).Maximum height of parking floor shall be 3.00 meter including depth of beam.
    - (v) Frame control drawings, if applicable shall have precedence over the above provisions;
    - (vi) A mumty with clear height of 2.50 meters shall be allowed over the staircase portion, for approaching the terrace; and
    - (vii) Balcony projection of 1.20 meter shall be permitted in front and back offsets of 3.0 meters;
- **(B)** Commercial:- The coverage and number of storeys in case of shop-cum-flat, shop-cum-office, shopping booths shall be in accordance with the approved scheme/Architectural Control Sheets.
- **(C) Institutions and other buildings:-** The coverage, number of storey's and offsets shall be as per the approved scheme or as provided in the zoning plan.
- **Explanation 1.-** The following portion shall not be considered as covered area namely:-
  - (a) Sunshade, chajjas architrave cantilevered from the face of entrance wall up to 1.8 meters beyond the wall and at a height not lower than 2.3 meters, and.
  - (b) a paragola constructed purely for Architectural effects.

- **16.** Height of mezzanine storey and internal balconies:- (1) A mezzanine floor or internal balcony shall not be permitted unless the height of the room is at least 5.2 meters and such mezzanine floors or balconies do not cover more than one third of the room area.
- (2) The height of such mezzanine floors or internal balcony shall not be less than 2.3 meters and it shall not be lower than 2.3 meters above the floor level.
- **17. Minimum provision with regard to residential buildings:** No building for residential use shall be constructed or allowed to be used till every dwelling unit, besides a living room or rooms provided for a kitchen and toilet facilities.
- **18 Minimum area of courtyard for purpose of ventilation:** The minimum superficial area of every enclosed courtyard of a residential building upon which habitable rooms abut shall be one fourth of the aggregate floor area of the rooms and verandah on the ground floor abutting on the courtyard:

Provided that such courtyard shall not be, less than 12.0 square meters in area and the minimum width of every such courtyard in any direction shall not be less than 3.00 meters. For determining the said aggregate, floor area of the rooms and verandah abutting on the courtyard:-

- (a) only one half of the floor area of such rooms and verandah as abut on another courtyard or on open space or road not less than 4.5 meters in width shall be taken in account;
- (b) any room which is separated only by an open verandah from courtyard shall for the purpose of this bye-law, be deemed to abut on such courtyard; and
- (c) the area of the courtyard for the purpose of this bye-law shall be the area open to sky, clear of all projections.
- **19. Minimum size and requirement of ventilation regarding a habitable room.** Every habitable room including a shop;
  - (a) shall have a clear floor area of not less than 9.50 square meters and width not less than 2.50 meters.
  - (b) shall be provided for the purpose of light and ventilation with doors and windows or other apertures which shall have total opening of not less than 1/4<sup>th</sup> of the floor area of the room. Habitable room should have direct opening.
- **20. Kitchen:-** A kitchen shall have a minimum area of 4.50 square meters with minimum width of 1.80 meters and in addition;
  - (i) wall be well lit and constant means of light ventilation shall be provided through external air, the minimum area of which shall be 0.5 sq mt.
  - (ii) it shall be provided with cooking range of standing or sitting type;

- (iii) an effective flue with other sufficient arrangements to prevent any smoke flowing to the kitchen;
- (iv) the floor of impervious and fire resistant nature with an impermeable dado 0.90meter high;
- (v) a sink or khura for washing utensils of minimum 60 x 45cm, and.
- (vi) the drainage of kitchen shall be through a proper floor trap connected to the main sewerage.
- **21. Bath room and water closet:-** (1) The size of the bath room shall not be less than 1.50x1.20 meters or if it is combined bath and water closet, its floor area shall be not less than 2.50 square meters with a minimum width of 1.20 meters.
- (2) The minimum floor area of water closet shall be 1.35 square meters, it's smallest side being 0.90 meter. It shall be provided with permanent ventilation of minimum of 0.2 square meter, in addition to the door, and a window opening directly to the outside air of not less than one fourth of the floor area.
- (3) No person shall dispose off the affluent from septic tank by surface verification or sub-soil drainage or into an open unlined & cess pool.
- (4) An impermeable dado up to 0.90 meter on the walls shall be provided.
- (5) The ventilation to water closet, bath, toilet and kitchen can be allowed through a shaft/duct the minimum area of which shall be 1 square meter with minimum width of 75 centimeters.
- **22. Sloppy roof height -** Height of sloppy roof shall be zero at eaves and maximum 2.50 meters at centre.
- **23. Height of boundary wall/ compounding wall:-** The height of wall shall be 150 cm. the side walls can be constructed in stepping where the site is sloppy. No part of footing shall be laid in adjoining plot.

#### **STAIRCASES**

- **24. Staircase in residential buildings:-** Every building of more than one storey height intended to be used as a single family or two family residential building, shall be provided with at least one staircase having minimum width of 0.90 meter constructed of fire resisting material throughout.
- 25. Residential buildings with multiple dwelling units other than the above commercial, public and industrial buildings:- (1) Every building intended to be used as a multiple residential building or a commercial or public or industrial building shall be provided with at least one staircase extending from ground floor level to the highest floor having minimum clear width in accordance with the following table:-
  - Number of users up to 100: 1.20 meters (width).
  - ➤ Increase 0.025 meter for every additional 15 persons until a maximum of 2.75 meters is reached.

(2) Single stair case of the width mentioned above may be replaced by two stair cases each of width at least equal to  $2/3^{rd}$  the width prescribed for single stair case provided neither of the two substituted stair case shall be less than 1.2 meters in width. Staircase so provided shall be built in fire resistant material.

**Explanation.** – For the purpose of this bye-law each 5.00 square meters of floor space in case of non-residential buildings and 10.00 square meters of floor space in the case of residential building shall be deemed to be occupied by one person.

- **26. Minimum dimension of steps:** (1) No stair in a residential building shall have a rise of more than 0.20 meter and a tread of less than 0.25 meter.
- (2) No stair in a commercial, public or industrial building shall have a rise of more than 0.18 meter and a tread of less than 0.27 meter.
- (3) Notwithstanding anything contained in sub-bye-laws (1) and (2) above, staircase in private portions of public building or warehouses and industrial buildings not open to the general public may be of the sizes and material mentioned in this bye-law.
- **27. Material:-** All staircases and walls enclosing the staircases in public buildings and warehouses and industrial buildings be of fire proof materials.
- **28.** Uniformity of treads and riser in staircase:- Treads and risers of each flights of a staircase or of several flights in the same staircase in a public building or a warehouse and industrial or a residential building shall be of uniform width and height.
- **29.** Location of staircase- No part of the second or of any higher storey of any building shall be more than 30 meters from same staircase or ramp leading to the ground floor.
- **30. Ventilation of staircase-** Every staircase shall be adequately ventilated and lit to the satisfaction of the Competent Authority.
- **31 Headroom in staircase-** The minimum clear head room in any staircase shall be 2.10 meters measured from the top of the riser to the most dependent portion of the ceiling above.
- **32. Provision of hand rails-** (1) In every staircase at least one hand rail shall be provided.
- (2) Where steps are provided from the ground to the building, hand rail may not be provided if the steps do not go above 1.5 meters height and are not less than 1 meter in width.

#### LOBBIES, CORRIDOORS, PASSAGES AND BALCONIES

**33. Lobbies, corridors, passages and balconies**- The minimum width of any lobby, corridor, passage or balcony in a residential building shall be at least 1.0 meter and shall be of fire resisting materials and shall be carried on, support of fire resisting materials.

- **34.** Residential buildings with multiple dwelling and commercial public and industrial buildings- (1) The minimum width of any lobby, corridor, passage or a balcony in these buildings shall be as given below:-
  - (a) number of users from 1 to 20 1.0 meter (b) number of users from 20 to 100 1.2 meters.
  - (2) Increase 0.025 meter for every additional 15 persons until a maximum of 2.75 meters is reached.
  - (3) Walls and roofs shall be of fire resisting materials and shall be carried on support of fire resisting material.
- **35.** Projection and height of chajja, balcony and canopy- Where there is a balcony, a chajja cantilevered from the wall and this shall not project more than 1.20 meter beyond the building line when measured at right angle to outer face of the wall. This shall only be permitted at front and rear face of the building. No such projection shall be less than 2.10 meters clear to above the plinth level of the building. On side no chajja will project beyond 60cm beyond building line.
- **36.** Cattle shed and private wells- No cattle shed shall be constructed on a plot the area of which is less than 250 square meters. No private wells, tube-wells and hand-pumps shall be constructed without the prior permission of Competent Authority.
- **37. Party walls, roofs and height of parapet-** The party walls of all roofs having access by means of a staircase shall have a party walls of minimum height of 1.8 meters throughout its length between the internal faces of outer parapet walls. Notwithstanding above, terminal ends of the building may be shaped for Architectural consideration. All parapets walls, balustrades, railings, affording protection to roof terraces, balconies or verandahs at or above first storey level and having access thereto by staircase door or other openings shall have a height of not less than 0.75 meter minimum 23 centimeters parapets above finished flat roof shall be provided for regulating the flow on surface water.
- **38.** Garages- Where garage adjoins a habitable room, there shall be no opening in the common wall. There shall be a ventilated lobby or open space between an opening to a garage and habitable room accessible there from.
- **39.** Advertisement stand and structure- No structure shall be constructed to carry on advertisement except in the space shown in the zoning plan.
- **40. Numbering of building-** Each building shall have a number which shall be made available by the Competent Authority and shall bear no other number.
- **41. Dry area-** No building intended for human habitation shall be constructed within 1.5 meters of the hill side unless there is clear space of not less than 1 meter in width and open to sky between such hill side and every part of any walls of the building facing such hill side; provided such clear space may be traversed by a bridge or bridges giving communication between the building and hill side but covering not more than 25% of the dry area subject to minimum of 3.00 meters. However, the entry to a building shall be from front and no other entry shall be allowed.

- **42. Responsibility for quality and workmanship-** The person who applies to erect or reerect a building shall be responsible for ensuring that all the building materials used in the buildings are sound, of good quality and properly put together, and that the building is structurally stable.
- **43 Storm water drainage-** Adequate provision shall be made for the proper drainage of rain water from the building and also surface water from the compound of the building.
- **44. Damp proof course-**All walls internal and external shall be provided with a course of some hard impervious materials, such as cement, concrete, slate, asphalt, lead or vitrified bricks etc. at the plinth level in order to prevent dampness rising by capillary action.
- **45.** Commercial building- (1) Use of verandah for commercial building:- The verandah in front of booth/shops shall be kept clear for pedestrian movement and not in any case be used for keeping any articles.
- (2) Change in internal planning of standard design of commercial building-Any change in the internal planning of booth/shop be got approved from the Competent Authority before it is being constructed.
- (3) **Construction of shops in conformity with drawing -** All shops/booths shall be constructed strictly according to the drawing obtained from the Competent Authority on fixed price.
  - (4) Shop-cum-flat:-
    - (i) for erection of shop-cum-flats the bye-laws relating to construction of residential building shall apply; and
      - (ii) in case of two roomed tenements in shop-cum-flats the area of one room may be 7.50 square meters.
- **46.** Use of plans- In case of applicants, using plans provided by the Authority, the certificate to be attached with the notice of completion of the building shall be issued by the Competent Authority.
- **47. Building material and wooden floor-** The building shall be roofed with fire resistant material. The roof shall be of sufficient strength to ensure stability and shall be provided with adequate gutter, rain water pipes and snow guards in case of sloping roofs. The floor of every building at plinth level shall be made of cement concrete. If a room on the ground floor is intended for human habitation, the floor shall be at same level as the damp proof course and may be allowed to be of wood instead of cement concrete. The Authority, may sanction a floor intended for human habitation at plinth level to be built of wood; provided that this is made of planned, tongued and grooved or revated deodar wood planks laid carefully and closely jointed in such a manner as to permit a clear space of 15 centimeters between the floor joints and ground; and provided further that the level of the wooden floor is 15 centimeters above that of damp proof course. Such air space must be adequately ventilated to allow free circulation of air by opening measuring at least 15x23 centimeters to the external air and provided with wire gauge to exclude vermin. At least one such opening shall be provided for every 1.3 square meters of floor area. In any case not less than two such ventilators be provided.

#### CHIMNEYS AND FLUES

- **48. Application-** Provision of this bye-law shall not apply to the erection or re-erection of chimneys shafts, for the furnaces in commercial or industrial buildings, the design of which shall be specially approved by the Competent Authority but they shall apply to the erection or re-erection of chimney shafts for open fires and small domestic boilers.
- **Explanation.** "Small domestic boilers" shall mean boilers which do not require flues exceeding 500 square centimeters in area.
- **49. Materials-** Every chimney shall be constructed of burnt bricks or concrete blocks or of any other good hard and incombustible material properly and solidly put together.
- **50. Design and construction-**Every chimney which is built against or forms a part of a wall and extends to or below the surface of the ground shall be built on solid foundations which shall comply with the requirement of the bye-laws relating to the foundations of structural walls. It shall have a damp proof course at the top and if the wall with which it is built requires to be provided with a damp proof course at the bottom, the chimney shall be provided with the same. Also it shall be properly bonded or otherwise securely tied with the wall with which it is built.
- **51. Floor beneath fire place-** Floors beneath and around every fire place shall be of concrete or similar fire proof material and shall project suitably.
- **52. Jams and backs of fire place-** The jams of a fire place opening shall be of adequate width and the back of the chimney opening in a party wall shall be 20 centimeters thick up to 30 centimeters above the top of the opening. Where the flues in a party wall are not back to back the required 20 centimeters of solid wall at back of the fire place shall be carried up to the floor of the room above. In external or internal wall the back of the opening and all sides of the flues shall be at least 10 centimeters thick.
- **53. Flue size-** Every fire place shall have a flue giving a clear opening of not less than 20x20 centimeters or not less than 75 square centimeters, if a pipe is used.
- **54. Treatment of inside of chimney flues-** The inside of every chimney flue shall be properly rendered or pargetted as such flue is carried upward unless the whole flue is built with fire brick or fire proof hoping of fire clay of at least 2 centimeters in thickness in which case the spandrel angles shall be filled in solid with brick work or other incombustible materials.
- **55.** Wood work in chimneys- In any wall no timber shall be placed near than 20 centimeters to the inside of any flues or chimney opening except the wooden plugs in any wall or chimneys breast can be driven nearer than 15 centimeter to the inside of any flue or chimney opening. Under any chimneys opening no timber shall be within 40 centimeters from the upper surface or the hearth.
- **56.** Chimney stacks:- (1) Chimney stacks or smoke flues shall be carried up to a height not less than 1 meter and not more than six times the least width of the chimney above the adjoining roof and shall be built at least 10 centimeters thick. The maximum height for any stack may be exceeded if it is adequately secured against overturning.
- (2) Height of chimney stack may be reduced to 45 centimeters when the roof is made of fire resisting materials. The top six courses of all stacks shall be built in cement mortar.

**57. Pipe for conveying smoke-** No pipe for the purpose of conveying smoke or other products of combustion shall be allowed to project through the wall externally. Elsewhere such pipes may be of mild steel 4 millimeters thick or of cast iron complying with the Indian Standard specifications for pipes or of sheet metal for domestic cooking ranges only and shall be fixed at a distance of at least 20 centimeters from any combustible.

#### DRAINAGE AND SANITARY INSTALLATIONS GENERAL

- **58.** Notice of carrying out drainage work and application for permission- No person shall carry out any water borne sanitary and drainage installations or carry out any works connected therewith within any building or site without the previous permission of the Competent Authority.
- **59.** Adequacy of water supply for the installation of water borne sanitary installation-Before undertaking the installation of water borne sanitary system in any building to the premises shall be ensured to the satisfaction of the Competent Authority.
- **60.** Sanitary fitting and execution of works to confirm to Himachal Pradesh Public Works Department specifications- All sanitary fittings, drainage pipes including soil and waste pipes and other articles used in the execution of these works shall be as per standards and specifications laid down for such articles in the Himachal Pradesh Public Works Department Specification as adopted by Himachal Pradesh Government or as laid down by the Authority from time to time and if there are no standard or specifications laid down for any article in the Himachal Pradesh Public Works Department Specifications, then the articles shall be as per standards specifications laid down by the Indian Standard Institute and if there is no specification or standard laid down by the Indian Standard Institute, then the article shall be as per British Standards.
- **61.** All drainage system to be air smoke and water tight- All drainage system including joints shall be air smoke and water tight and shall be capable of resisting a pressure of at least 1.5 meters head of water.
- **62.** No work of foul and waste water drainage to be kept separate- The net work of foul water drainage and the net work of waste water drainage shall be designed according to requirements of National Building Code.
- **63. Junctions-** Every drain including pipe drainage into any other drain or a pipe sewer shall join the later obliquely in the direction of the flow of the latter.

#### **SANITARY FITTINGS**

- **64 Minimum sanitary facilities in various types of buildings-**(1) Dwelling with individual convenience shall have at least the following fitments:-
  - (a) One bath room provided with tap;
  - (b) One water closet: and
  - (c) One nahani or sink either in the floor or raised from the floor.

- (2) Where only one water closet is provided in a dwelling the bath and water closet shall be separately provided.
- (3) The requirements for fitments for drainage and sanitation in the case of building other than residence such as office building, factories, cinemas, concert hall, theatres, hospitals, hotels, restaurants, schools and hostels be in accordance with National Building Code issued by the Indian Standard Institution, New Delhi with such, modification as may be made by the said institutions from time to time.
- **65.** Water closet- (1) Every water closet pan shall have an efficient siphon trap with a minimum water seal of 75 millimeters beneath so that sufficient water seal, between the pan and any drain or soil pipe is maintained.
- (2) No part of the water closet apparatus shall be directly connected with water supply distribution pipe for flushing and cleaning of the pan, special close cistern with suitable ball cock and of not less than 12 liters capacity shall be provided.
- (3) The capacity of every reserve tank shall be at the scale of 70 liters for one water closet connected to the tank and 280 liters for each additional seat in the same premises.
- (4) Where the water closet discharges into a soil pipe which also receives the discharge from another water closet, the trap of the water closet shall be ventilated by a pipe which shall;
  - (a) have an internal diameter of not less than 50 centimeters;
- (b) be connected with the arm of the soil pipe at a point not less than 7.5 centimeters and not more than 30 centimeters from the highest part of the trap, on that side of the water seal which is nearer to the soil pipe and in the direction of the flow; and
  - (c) either have an open and as high as the top of soil pipe at or be carried into a soil at a point not less than 2.0 meters above the highest connection to the soil pipe.
- **66.** Urinals- A urinal connected with a building which has a supply of water, laid on shall comply with the following requirements:-
  - (i) the urinals shall be provided with a basin, stall, through or other suitable receptacle or receptacles of non absorbent material;
  - (ii) the outlet from the receptacles shall be provided with an efficient grating;
  - (iii) the urinal shall be provided with suitable apparatus for effectively flushing and cleaning the receptacles provided;
  - (iv) no part of the urinal apparatus, other than the flushing apparatus, shall be directly connected with a supply or distributing pipe;

- (v) if the urinal can be entered from within the building and is constructed to discharge into a waste pipe, which also receives the discharge from another urinal, or from a water closet, bath sink, bidet or lavatory basin, the trap of the urinal shall be ventilated by pipe which shall;
  - (a) be of an internal diameter of not less than that of the trap or 50 millimeters whichever is less;
  - (b) be connected with the waste pipe from the urinal at a point not less than 7.5 centimeters and not more than 30 centimeters from the highest part of the trap, on that side of the water seal which is nearer to the waste pipe; and
  - (c) either have an open end and as high as the top of the waste pipe or be carried into a waste pipe at a point not less than 1.0 meter above the highest connection to the waste pipe.

#### LAYING OUT OF DRAIN AND INSTALLATION OF DRAIN PIPES

#### **67. Laying of drains-** (1) Every drain shall:-

- (a) be of a suitable size, and if it is intended for the conveyance of foul water shall have a internal diameter of not less than 100 millimeters; and
- (b) be laid with a suitable fall and where practicable in a direct line. The standard gradient shall be 1 in 40 for a 100 millimeters drain and 1 in 80 for 150 millimeters drain. The maximum and minimum gradients shall respectively be 1 in 20 and 1 in 80 for a 100 millimeters drain and 1 in 40 and 1 in 140 respectively for a 150 millimeters drain.
- (2) A drain shall not be constructed to be within or under any building, except in a case where any other situation is impracticable.
- (3) Where any such drain or part thereof is constructed within or under a such drain or such part thereof shall be laid or fixed in a direct line, where practicable and be provided with adequate means of access.
- (4) Where any such drain is laid under a wall, it shall be protected at that part which is under the wall by means of a relieving arch, flag stone, iron or any other support which shall not bear on the drain and shall be of sufficient size and strength to prevent any disturbance or other injury to such drain.
- (5) A drain shall not be constructed in such a manner that there shall be within a building, any inlet to such drain except such inlet as may be necessary from any sanitary fittings or any sanitary installation connected directly to such drain.

- (6) Every inlet other than ventilation pipe to such drain shall be properly by a suitable and efficient trap and such trap shall be formed and fixed so as to be capable of maintaining a watershed of
  - (a) 5 centimeters where such inlet has an internal diameter of less than 80 millimeters; and
  - (b) 7.5 centimeters where such inlet has an internal diameter of more than 80 millimeter.
- (7) Every trapped gully shall be covered with a gratting the bars of which shall be not more than 10 millimeters apart.
- (8) A suitable and efficient intercepting trap, with a water seal of at least 10 centimeters of a point as distant as may be practicable from the building and as near as may be practicable to such a drain before connecting it may be connected with the sewer. Such a trap shall be provided with a raking or cleaning arm, fitted with a secure and suitable stopper as a means of access to the drain between such trap and sewer, and shall be located within a manhole.
- **68. Ventilation of drains-** The drains intended for conveying foul water from a building shall be provided with at least one ventilating pipe situated as near as practicable to the building and away as far as practicable, from the point at which the drain empties into the sewer or other means of disposal:

Provided that a soil pipe from a water closet or water pipe from slope sink, constructed in accordance with these bye-laws may serve for the ventilating pipe of the drain, if its situation is in accordance with these bye-laws.

- **69. Manholes-** A manhole shall be provided at every point at which the drain changes either its direction or gradient and otherwise at interval, not exceeding 100 meters. A manhole shall be of such a size as to allow access to the drain for roding and shall be provided with proper cover flush with ground surface.
- **70. Soil pipes and ventilating pipes-** A soil pipe or a ventilating pipe shall be;
  - (i) easily accessible throughout its course and adequately protected where necessary from damage;
  - (ii) of an internal diameter of not less than 100 millimeters.
  - (iii) circular;
  - (iv) carried upward to such a height and in such a manner so as to prevent any nuisance or injury or danger to health arising from the emission of foul air from such pipe, the minimum height being 60 millimeters above the roof top; and
  - (v) be fitted at the end with a suitable grating or cover admitting the free passage of air.

- **71. Separation of soil pipes from rain water pipes-** No soil pipe or ventilating pipe shall be connected with any rain water pipe.
- **72. Provision of traps-** There shall be no trap in any soil or ventilating pipes, nor between any other pipe and drain to which it is connected but every sanitary fitting connected to soil pipe, ventilating pipe or drain shall be provided with a trap.
- **73.** Waste water pipes- A waste water pipe from a bath, sink (not being a slope sink) bidet or lavatory basin and pipe for carrying of dirty water shall;
  - (i) discharge so as not to cause dampness in wall or foundation of building;
  - (ii) if it discharges into a drain it shall be disconnected from the drain by a trapped gully with a suitable grating above the level of the water in the trap; and
  - (iii) if it is more than 1.80 meters in length, be provided with a suitable trap.

**Note:** If single stack system is used then the above will be suitable modified according to National Building Code.

- **74.** Overflow pipe- An overflow pipe from a water cistern shall discharge in an exposed and conspicuous position so as not to cause dampness on any part of a building.
- **75. Pipes not to be exposed on external walls-** Wherever possible no down pipes, soil pipes and ventilating pipes shall be exposed on any external walls of a building and shall be placed in a recess or chase or a duct.

#### **DISPOSAL**

- **76. Method of disposal-** Every water borne drainage system shall be connected with the public sewer but in case no public sewer exists in the vicinity of the said premises, the drainage system may as a temporary measure and subject to the previous written approval of the Competent Authority, be connected to a septic tank from which the effluent shall be drained of;
  - (a) into absorption pits; or
  - (b) by sub-soil irrigation drains:

Provided that no absorption pit shall be allowed in case of any premises or area in which domestic supply is taken from sub-soil water:

Provided further that if in any further period a public sewer is constructed which can serve the premises, the owner shall at his own expense cause the said drainage system to be connected to this sewer.

77 Septic tanks:- (1) No septic tank shall be located;

(a) at a distance of less than 25 meters from a dwelling house or any other building used for human habitation or for work or recreation or within a public thoroughfare; and

- (b) within 60 meters from any percolation well, water-course or stream used or likely to be used for drinking or domestic purposes or for manufacture or preparation of any article of food or drink for human consumption and it shall be readily accessible so as to permit cleaning operations being carried out without interference with the operations of any water borne sanitary installation as a whole.
- (2) Every septic tank intended to serve a population of 24 or more persons shall be constructed into two separate compartments so that one compartment when required can be put out of use for cleaning purposes. The capacity of every compartment of septic tank shall be  $2^{1}/_{2}$  times the total water supply allowances for total number of residents of the buildings.
  - (3) Every inlet pipe into a septic tank shall be effectively trapped.

#### 78 Absorption pits:-

- (1) In the matter of location, every absorption pit shall confirm to same restrictions as are laid down for a septic tank in bye-law 81.
- (2) No absorption pit shall have any outlet into a means of communication with any sewer, storm water drain or surface drain.
- **79.** Sanitary installations and drainage to be completed before applying for connection- (1) After completing the sanitary installations and drainage, the applicant shall apply to the Executive Engineer for grant of certificate regarding the completion of sanitary installations and drainage.
  - (2) The concerned Assistant Engineer shall ensure that the sanitary installations and drainage have been satisfactorily completed and he will send the report to the Executive Engineer.
  - (3) After obtaining the necessary report from the concerned Assistant Engineer, the Executive Engineer shall issue a certificate in this regard.
  - (4) If no decision is communicated on the application for a certificate, applied under bye-law (1), within 30 days of the receipt of application, the certificate shall be deemed to have been granted.
- **80. Application before connection with public sewers -** (1) After grant of the certificate as required under the bye-law 79 or in the event of the said certificate having been deemed to have been granted, every applicant intending to connect a drain through a public sewer shall apply to the Competent Authority in **Form-E** at least 7 days before the date on which connection is required.
- (2) The application shall be accompanied by a certificate referred to in bye-law-83 if supplied within the stipulated period and an amount Rs. 5000/- as grant of certificate fee.

- (3) On receipt of application and subject to the requirement of bye-laws-80, the Competent Authority shall accept or reject the application after giving reasons for rejection.
- (4) In the event of the required connection having been sanctioned, it shall be made only through Authorized Officer of Authority.
- **81. Sewer Connection-** (1) Every drain discharging into a public sewer shall join later oblique in the direction of its flow.
- (2) If practicable, the connection shall be made at an existing junction in the sewer and if this is not made, there shall be an intercepting manhole, before the connection.

#### STORM WATER

**82. Drainage of roofs-** the roofs of every building shall drain into gutters, shoots or troughs, and shall be carried down through adequate number of down pipes without causing dampness in any part of the wall or foundation of the building or any adjacent building;

Provided that in the case of detached or semi detached building not exceeding one storey in height rain water spouts or khasi or revealed parnallas may be provided for so long as these do not discharge into any public road, foot path or on private land of adjoining owners.

- **83. Size of down pipes-** A down pipe of minimum diameter of 7.50 centimeters shall be provided for every 50 square meters flat roof area (slope of roof being 1:48) or for every 100 square meters of sloping roof area (slope of roof exceeding 1:48).
- **84. Storm water not to drain into sewer-** The run off from the roof, paved area and over flow if any, from the site, shall not be drained into the underground sewerage system.

#### INSPECTION AND MINOR ALTERATIONS

- **85. Inspection-** Every person by or for whom any water borne sanitary installations or drainage installation or any work in connection therewith is carried out for any existing or new building or in any other premises shall at all reasonable times afford the Competent Authority or any Officer/Official duly authorized by him, free access to such water borne sanitary or drainage installation or work in connection therewith for the purpose of inspection.
- **86.** Minor alterations in case of emergency- In any case in which a minor alteration to the water borne sanitary or drainage installation must be carried out at once, every person who is about to carry out such alterations shall, in lieu of depositing the plans, sanctions and particulars referred to in the foregoing bye-laws forthwith inform the Competent Authority in writing of such proposed alterations. He shall also within 14 days of the commencement of such alterations make the deposits required by these bye-laws.

#### PART-V MATERIALS AND CONTROL

- **87. Materials-** All materials to be used for the erection of a building shall confirm to the specification and standards laid down in the H.P. Public Works Departments specifications, as adopted by H.P. Government or as may be laid down by the Authority from time to time.
- **88. Floors:-** All floors of every building including floor of kitchen, bathrooms, latrine, urinals, shall be damp and rot proof and shall be constructed of materials so treated as to protect it from white ants, dry rot, wet rot, as per Himachal Pradesh Public Works Department Specifications or as laid down by the Authority from time to time.
- **89.** Walls- (1) No wall shall be constructed of easily inflammable materials, for the purpose of this bye-laws, easily inflammable material will not include teak, sal, shisham and deodar, kail wood or other wood as per I.S.I. specifications for such work.
- (2) No masonry wall other than party wall shall be built in clay mortar to a greater height than one storey and walls shall be plastered or pointing so as to render it impermeable and damp proof. The minimum thickness of such a wall shall in no case be less than 20 centimeters.
- **90. Hollow bricks and block walls-** Where any wall or any part of a wall is constructed as a hollow wall:
- (a) the cavity between the inner and outer parts of the wall shall throughout be of a width not exceeding 10 centimeters;
- (b) the inner and outer parts of the walls shall be securely tied together with suitable bounding ties of adequate strength of vulcanized iron tarred and sands stone ware, copper, bronze or other suitable materials, the ties being placed at distances apart not exceeding 1 meter horizontally and 0.5 meter vertically;
- (c) the inner and the outer parts of the wall shall each be not less than 10 centimeters thick throughout except that in a wall not exceeding 6 meters length and 6 meters in height, the thickness of each part may not be less than 10 centimeters throughout if all courses of less height than 15 centimeters are put together with cement mortar or the wall has at least twice the number of ties required by the preceding clause; and
- (d) the cavity may be reckoned as part of the thickness prescribed for walls by these bye-laws where such thickness does not exceed 20 centimeters, but shall not be so reckoned where such thickness exceeds 20 centimeters. All external cavity walls shall be ventilated.
- **91. Roofs-** (1) Every roof shall be weather proof and fire resistant and in no case shall be built of mat, sirki, cloth, grass or thatch or any other easily inflammable materials and it shall be structurally safe against dead and live loads and prevailing wind pressure.
- (2) Subject to above provision, every roof shall be of any material and specifications as prescribed in the Himachal Pradesh Public Works Department Specifications or as laid down by the Authority from time to time.

#### PART -VI

# PROCEDURE FOR THE CONSTRUCTION OF BUILDING INCLUDING WORKSHOPS, FACTORIES, FACTORY-OFFICES AND STORES IN THE INDUSTRIAL AREA

- **92. Application to build** Every applicant shall submit his application to build on the prescribed **Form-A** with four sets of enclosures. All the enclosures shall be signed by the applicant. The scrutiny fee as indicated in table **Annexure-A** of these bye-laws shall be payable with the application.
- **93. Specifications** (1) Structure- Buildings may be constructed in reinforced cement concrete frame structure and panel walls not less than 23 centimeters in thickness. Factory portion of the building may be constructed in stone-masonry load bearing walls not less than 45 centimeters thick for a height of 3 meters and 40 centimeters thick for the rest of the height or in burnt brick masonry load bearing walls not less than 34.5 centimeters thick for a height of 3 meters and 23 centimeters thick for the rest of the height, except under the trusses where 34.5 centimeters thick pillars shall be provided. If sufficiently strong pillars in cement mortar are provided under the trusses the thickness of the panel wall may be reduced to 23 centimeters. In all cases proper damp proofing course shall have to be provided.
- (2) **Roofing** Roofing shall be either of RCC slab with top terracing and water proofing in proper slope or steel or wooden trusses, purlins and corrugated galvanized iron or pre painted sheet.
- (3) **Flooring** Normally plain cement concrete or slate slab or brick on edge flooring shall be provided except for the area where kachha muram or sand flooring is functionally required. All lavatory blocks shall have cement concrete flooring with 1 meter high dado of the same material on all the walls. In toilet only richer type of flooring will be allowed.
- (4) All external walls shall be finished to the satisfaction of the Competent Authority.
- **94. Planning-** (1) Built up area:- No structure permanent or temporary open or otherwise will be allowed between the plot boundary and the building set back line shown in the main layout plan except the time office, whose covered area shall not exceed 9.5 square meters .The front set back line must be followed in any case, while on the sides and rear the building may be planned even within the set back line but not beyond it.
- (2) **Open Chawks and Gallies-** All enclosed areas &(or enclosed on three sides) chawks shall be properly paved .Area between two buildings or between two wings of the building shall have width not less than half the height of the higher building or wing.
- (3) **Open Areas-** All roads talking off from the outer main road including parking places shall, have cement concrete, flag-stone, brick on edge, premix topping or water bound macadam surface. Rest of the area shall be properly leveled and proper lawns shall be planned. Proper surface drains along the compound wall shall be laid in proper slopes and connected with the outer surface drains. These drains shall be pucca and plastered smooth from the inside.

- (4) **Compound wall and gate-** The front compound wall and gate shall be as per design supplied by the Authority. The rest of the compound wall may be of the same design or of any other design (but not of more height) or simple barbed wire and hedging. In case further security is desired barbed wire security fencing one meter high above the wall, fixed or bent angle iron will be allowed.
- (5) **Number of workers:-** For the purpose of determining number of workers working in a building, every 20 square meters of plinth area(Gross) of all buildings shall be deemed to be occupied by one person,. Number of unit's of toilet block and common area etc. will be calculated and determined on this basis.
- (6) **Size and height of rooms-** (i) Any room to be used as office, inspecting officer quarters, or such rooms in a mezzanine floor shall not be less than 9.5 square meters in area with width shall not less than 2.5 meters.
- (ii) The area of the water closet shall not be less than 1.35 square meters with minimum width as 90 centimeters. The area of bath shall not be less than 1.80 square meters with minimum width as 1.20 meters. The area of floor sink or an open washing place shall not be less than 75 centimeters x 75 centimeters with at least 75 centimeters parapet on three sides and 15 centimeters high curb on the fourth side. The clear width of any internal passage or gully shall not be less than 100 centimeters.
- (iii) The height of the workshop or factory area which is covered under the Factory Act shall not be less than 4.4. meters below the bottom most members of the truss or the ceiling. The height of any other room shall not be less than 2.75 meters clear. The height of the mezzanine floor shall not be less than 2.10 meters at any point of the floor and below the bottom most member of the roof truss or the ceiling. This applies to smaller store room also. However, maximum height of an industrial building shall not be more than 12 meters if the process requires so.
- (7) **Light and ventilation-** All the working areas, offices shall have windows not less than  $1/6^{th}$  of the floor area. For workshop if source of direct light is more than 7.5 meters away lighting from roof by way of north light trusses shall be provided. Each water closet. bath or closed washing place shall have a window not less than 0.4 Square meter of over all area, with at least 0.85 Square meter of permanent ventilation either separately provided or within the window. Each toilet block containing more than one water closet and one bath shall be provided at least one exhaust fan on the external wall. One exhaust fan for every 45 square meters of floor area of workshop or factory which are covered under the factory Act shall be provided.
- (8) Toilet and other facilities- Toilets facilities shall be provided on the following scale:-
  - (a) One water closet, one bath, one urinal, one wash-hand-basin and one floor sink shall be provided for every 25 workers or part thereof;
  - (b) changing room near the toilet block with provision of lockers shall be provided for at least 50% of the workers;

- (c) a proper cycle shed with stand shall be provided for at least 50% of the total number of the workers;
- (d) minimum width of the door to the water closet and bath room shall be 75 centimeters including frame and the height 2.10 meters from the floor and inclusive of top frame members;
- (e) door to small store shall have width of 85 centimeters and the width of all other doors shall not be less than 90 centimeters; and
- (f) in the workshop or factory area one door of 180 centimeters width shall be provided for every 25 workers.
- (9) **Approval/rejection-**Approval or rejection with or without objection will be communicated to the applicant within a period of 90 days. The applicant shall not start the construction unless he receives the approval.
- (10) **Violation of Bye-Laws** Contravention of any of the provisions of these bye-laws by any person shall be an offence and such offence shall be punishable under sub-section (3) of section 53 of the Act and the contravention made by such person shall also be removed/demolished at his risk and cost, after giving him reasonable opportunity of being heard as required under section 48.

#### **PART-VII**

#### BARRIER FREE ENVIRONMENT

- **95. Broad Guidelines:-** All the public building shall be universally accessible for persons with disabilities & senior citizens as per following broad guidelines.
- 1. Ramps
  - Gentle slope: 1:15 max.
  - Landing: every 750mm of vertical rise.
  - Width: 1200mm minimum.
  - Handrails to be on both sides and at two levels -760mm and 900mm. Both ends to be rounded or grouted and extend 300mm beyond top and bottom of ramp.
  - Surfaces (ramp + landing) should be slip resistant.
  - A ramp should be accompanied by a flight of easygoing steps.
  - Warning strip should be placed at 300mm before and after the ramp edges.
  - Stair edges should have 50mm wide, contrast colour band.
  - The maximum height of a flight between landings to be 1200mm.
  - Landing should be 1200mm deep, clear of any door swing.
  - The steps should have an unobstructed width of at least 1200mm.
  - Have continuous handrails on both sides including the wall (if any) and at two levels -760mm and 900mm.
  - Warning strip to be placed 300mm at the beginning and at the end of all stairs.
  - Nosing should be avoided.

#### 2. Handrails

- Handrails should be circular in section with a diameter of 38mm, at least 50mm clear of the surface to which they are attached, at two levels -760mm and 900mm from the finished floor, extend by at least 300mm beyond the head and foot of the flight and ramp, in the line of travel and grouted in the ground or in the wall.
- Line-type blocks indicate the correct path/route to follow.
- Dot-type blocks indicate warning signal ,to screen of obstacles, drops- offs or other hazards, to discourage movement in an incorrect direction and to warn of a corner or junction. Should placed 300mm at the beginning and end of the ramp stairs and entrance to any door.

#### 3. Circulation area

- Corridors should have an unobstructed width of 180 and to be well lit.
- Level differences should be beyeled.
- Protruding objects (more than 100mm from the wall) placed either in a niche or above 2100mm from the floor.
- Open spaces below ramps, escalator and stairs should be blocked out completely by protective guard rails raised curbs or marked with a tactile surface.

#### 4. Door

- Should provide a clear opening of 900 mm minimum.
- Be fitted with lever action locks and D shape handle circular section, between 800mm and 1000mm from level.
- Also be fitted with vision panels at least between 900mm and 1500mm from floor level.
- Be colour contrasted with the surrounding walls and should not be heavier than 22N to open.
- A distance of 400mm to 600mm should be provided beyond the leading edge of door to enable a wheels user to maneuver and to reach the handle.
- Kick plates are recommended 300mm from the bottom to resist wear and tear.
- Should have horizontal pull bar at least 600mm inside and 140mm long on the outside, at height of 700mm.

#### 5. Provision & Location of Accessible water closet Cubical

- There shall be at least one accessible water closet cubical on a floor, or in that part of a floor designed for access by the persons with a disability.
   water closet cubicles shall be accessible-
- Directly from a public corridor; and
- Where situated within a toilet containing other water closet cubicles, through a clear space not less than 1500mm x 1500mm immediately in front of the compartment to allow maneuverability or by direct approach where no turning of the wheelchair is necessary.

#### 6. Washbasins

• The toilet shall be provided with a wash basin mounted with the rim not higher than 750mm above the finished floor level. A clearance of 550mm shall be maintained from the finished floor level to the bottom of the apron. Tap for washbasin shall be automatic or of lever control type without spring loading. Tap shall not require tight grasping, pinching or twisting of the wrist. The operating force required shall not be greater than 22N.

#### 7. Urinals

If more than one urinal is provided, at least one urinal shall

- Have a clear leveled space of not less than 800mm wide x 1500mm deep in front.
- Be wall hung urinal with a front rim not higher than 400mm, and have vertical grab rails of not less than 35mm and not more than 50mm in external diameter and of 600mm length on both sides at a height of 1200mm above the finished floor level for use by persons with ambulant disabilities.

#### 8. Lift

- Floor: Minimum space for wheel-chair users 1500mm x 1500mm.
- Doors: 900mm wide and closing mechanism to be adjustment to give adequate entry time.
- Control Panel: Inside the lift to be on both the sides.
- Call Button & Control Panel: At reach of 800mm-1000mm at least 450mm from any corner.
- Key plans, orientation signs and push buttons in lifts should have a text in Braille and raised letters.
- Audio and visual indicator, review mirror & kick plates should be fitted.

**Note:-** For further clarification & details may refer guidelines framed by Central Public Works Department & Sugamya Bharat Abhiyan.

#### **PART-VIII**

# INSTALLATION OF SOLAR PHOTOVOLTAIC (PV) MODULES ON ROOFTOP OF BUILDINGS.

In order to encourage the renewal sources of energy, every effort has to be made to harness the solar energy through rooftop installation of Solar Photovoltaic modules.

#### 96. Norms for Roof Top Solar PV Installation

S. No.	Category of buildings/area	Area norm for Roof Top and capacity of Solar Photovoltaic Power plant to be installed*	
1.	All residential buildings built	Minimum 12 sq mt .	
	on a plot size of 100 Square	area of roof top	
	Yards and above falling within	Minimum 1 Kilo Watt peak (KWp) or 5% of	
	the Municipal or Urban	connected load whichever is higher.	
	Development Authority limits.		
2.	All private Educational	Minimum 60 sq mt area of roof top	
	Institutions, Schools, colleges,		
	Hostels, Technical/Vocational	Minimum 5 Kilo Watt peak (KWp) or 5% of	
	Education Institutes,	connected load whichever is higher.	
	Universities etc. having		
	connected load of 30 Kilo Watt		
	(KW) and above.		

	A11 G	
3.	All Government Buildings and	Minimum 25 sq mt area of roof top
	Offices, Government Colleges,	
	District Institute of Education	Minimum 2 Kilo Watt peak (KWp) or 5% of
	and Training (DIET),	connected load whichever is higher.
	Government Educational	
	Institutions, Universities etc.	
	having connected load of 30	
	Kilo Watt (KW) and above.	
4.	All private Hospitals and	Minimum 120 sq mts of roof top
	Nursing Homes, Industrial	
	Establishments, commercial	(i) Minimum 10 Kilo Watt peak (KW)
	Establishments, Malls, Hotels,	Or
	Motels, Banquet Halls and	5% of connected load whichever is higher.
	Tourism complexes	Minimum 600 sq mt area of roof top
	having connected load	(ii) Minimum 50 Kilo Watt peak (KWp)
	(i) of 50 Kilo Watt (KW) to	Or
	1000 Kilo Watt (KW)	5% of connected load whichever is higher.
	(ii) above 1000 Kilo Watt	E
	(KW)	
5.	All new housing complexes,	Minimum 120 sq mt of roof top area to 480
	developed by Group Housing	sq mt depending on the KWp
	Societies, Builders, Housing	
	Boards, on a plot size of:	Minimum 10 Kilo Watt peak (KWp)
	(i) 0.5 Acre to 1.0 Acre.	Minimum 20 Kilo Watt peak (KWp)
	(ii) More than 1.0 Acre to 2.0	Minimum 30 Kilo Watt peak (KWp)
	Acre.	Minimum 40 Kilo Watt peak (KWp)
	(iii) More than 2.0 Acres to 5.0	10 1 Poda (12 P)
	Acres.	
	(iv) More than 5.0 Acres.	

The area requirement on roof top has been calculated @ 12 sq mt per 1 KWp\*

#### **PART-IX**

#### STRUCTURAL AUDIT OF BUILDINGS

**97. General:-** Structural audit is for maintenance and repair of existing structures whose life has exceeded the age of 30 years and avoid any misshapes and save human life. Structural audit is to be done by an experienced and licensed engineer.

## (A) Stages in Carrying Out Structural Audit

- (Ai) Study of architectural and structural drawings, design criteria, design calculations, structural stability certificate of existing structures.
  - If architectural and structural drawings are not available, as built drawings can be prepared by an engineer .

#### **Visual Inspection**

Need of visual inspection

- To recognize the types of structural defects.
- To identify any signs of material deterioration.
- To identify any signs of structural distress and deformation.
- To identify any alteration and addition in the structure, misuse which may result in overloading.

#### (Aii) Scope of visual inspection

The inspection report should reveal the following listings along with photographs and sketches.

#### (a) General information of the building

- Name and address of the building.
- Number of stories in each block of building.
- Description of main usage of building viz. Residential, commercial, institutional.
- Maintenance history of the building.

#### (b) Structural system of the building

- Sub structure: Settlement of columns or foundations, Settlement of Walls and floors, Deflection and cracks in Retaining Wall, Soil bearing capacity through trial pits or from adjacent soil data.
- Super structure: Materials used and framing system of structure, identification of the critical structural members like floating columns, transfer beams, slender members, rusting of exposed steel and its extent.
- Mention the status of all building elements like beams, slabs, columns, balconies, canopy, false ceiling, chajjas, parapet and railings with respect to parameters deflection, cracks and
- leakages of concrete.
- Likewise, verify the status of water tank, staircase, lift and lift machine room.

#### (C) Addition or Alterations in the building

- Identification of change of occupancy.
- Alteration or addition of partition walls.
- Alteration or addition in loadings- stacking.
- Alteration or addition of toilets, water tank.
- Alteration or addition of balcony.

#### (d) Dampness and leakages

- Detect the dampness in walls.
- Identify the leakages in Terrace, toilets, plumbing lines, drainage lines and overhead tanks.

#### (Aiii) Non Destructive and Destructive Testing

In addition to visual inspection, the real strength and quality of a concrete structure need to be checked with non-destructive tests. A number of non- destructive tests (NDT) for concrete members are available to determine present strength and quality of concrete. Some of these tests are very useful in assessment of damage to RCC structures subjected to corrosion, chemical attack, fire and due to other reasons.

These tests have been put under four categories depending on the purpose of test as under:

#### (Aiv) Concrete Strength

- Rebound Hammer Test: To measure surface hardness of concrete.
- Ultrasonic Pulse Velocity Test: To assess homogeneity of concrete, to assess strength of concrete qualitatively, to determine structural integrity.
- Core sampling and Testing: To measure strength, permeability, density of concrete.

#### (Av) Chemical Attack

- Carbonation Test: To assess depth of carbonation and pH of concrete.
- Chloride Test: To assess total water/acid soluble chloride contents.
- Sulphate Test: To asses total water /water soluble sulphate contents of concrete.

#### (Avi) Corrosion Potential Assessment

- Cover Meter: To measure cover of reinforcement, diameter of reinforcement and spacing of reinforcement.
- Half Cell Method: To assess probability of corrosion in the embedded steel.
- Permeability Test: To assess permeability of concrete due to water and air.

#### (Avii) Core Testing

This is direct method of assessing strength of concrete. In this method cylindrical core samples are taken from existing structures. The cores are visually inspected and tested in laboratory to check its compressive strength.

#### (Aviii) Pushover Analysis

Generally Push over analysis is used to understand the existing capacity of structure for seismic and gravity loading which will show different occupancy levels like immediate occupancy, life safety and collapse prevention. The seismic evaluation of existing buildings compares their capacity against earthquake demand at specific site and concerns the potential earthquake-caused risk to building systems and elements that are closely related to human life safety.

#### (Aix) Identification of critical areas in building

Based on the above inspection, analysis and test results, the report should conclude the critical areas that need immediate repairs and retrofitting. Fox example: number of columns requiring immediate repair and strengthening, repair of critical slab and beams, water proofing of terrace, toilet blocks, in walls or structural elements etc.

#### **PART-X**

#### **GREEN GROWTH & GREEN BUILDING**

In the planned housing colonies, the Green spaces should be provided in the organized & systematic manner. Green space means the space which has to be kept Green forever in which no construction shall be done. During planning of Housing Colonies, the special focus should remain as Green spaces. In the land use analysis of a colony adequate area should be left for green spaces as per prevalent norms for Community use to take environmental benefits.

Green buildings should be encouraged which basically seek the harness all the natural elements in its design and construction to an optimum level so as to have an eco friendly, low energy and low water consumption building and at the same time providing fresh & healthy environment to its occupants. Threats of global warming & shrinking natural resources along with rise in power consumptions has led to acceptance of need to construct all buildings as green buildings. Design & construction of buildings will benefit the community at large with the improvement in environment by improving energy security and reducing the stress on natural resources. While acquiring new land for construction of new housing colony site should be selected with full respect to ecology of the area and existing environment. The main focus should be minimum consumption of energy, maximum use of fresh water.

#### ANNEXURE-A (Schedule of fee)

(See Bye-laws 3(4), 8 to 11).

Schedule of fee for issuing standard drawings:-

1. Standard drawings

$\mathcal{C}$	
HIG/Cat-I House	Rs. 3500/-
MIG/Cat-II	Rs. 3000/-
LIG/Cat-III	Rs. 2500/-
EWS/Cat-IV	Rs. 2000/-

2. Standard for commercial

Shop-cum-flat Rs. 2500/-Booths. Rs. 1500/-

- 3. Cost of layout plan per copy
  For attaching with HPTA/
  Lease deed/Conveyance deed. Rs. 100/-
- 4. Refundable security for Approval of building plan of plots/issue of standard

Drawings. Rs. 1000/-

# Schedule of Scrutiny fee for different sizes of Residential, Commercial and Industrial plots:

Sr.	Component	Rate in Rs. P	er Sq. meter. floor
No.		space	
		Municipal	Outside
		area	Municipal area
1.	Economic Weaker Section up to 120 Sq. meter.	6	3
	Row or semi detached plot		
2.	Low Income Group 120 to 150 Sq meter. Semi-	12	5
	detached plot		
3.	Medium Income Group 150 to 250 Sq. meter	20	10
	plot		
4.	High Income Group more than 250 Sq. meter	30	15
	plot		

## 2. Commercial Use:-

Sr.	Commercial Floor space including	Rate in Rs. Per Sq. floor space			
No.	Corridor.				
		Municipal	Outside Municipal		
		area	area		
1.	Up to 10 Sq. meter.	15	10		
2.	11 to 20 Sq. meter	20	15		
3.	21 to 40 Sq. meter	30	20		
4.	41 to 80 Sq. meter	40	30		
5.	More than 80 Sq. meter	50	40		

## 3. Private Institutions, Clinics and Hospitals:-

Sr. No.	Floor space Sq. meter	Rate in Rs. Per Sq. meter floor space		
		Municipal area	Outside Municipal area	
1.	Up to 200 Sq. meter	20	15	
2.	201 to 400 Sq. meter	30	20	
3.	401 to 750 Sq. meter	40	30	
4.	Above 750	50	40	

#### 4. Industrial use:-

Rate in Rs. per Sq. meter of plot area				
High potential	Medium	Low Potential Zone		
zone	Potential Zone			
Sirmour and	Una & Kangra	Bilaspur, Mandi, Hamirpur, Chamba, Shimla, Kullu,		
Solan District	District	Kinnaur and Lahaul & Spiti Districts.		
20	15	10		

## 5. For Revalidation of Sanction.

Sr.	Land Use	Rate in Rs. Per Sq. meter floor			
No.		space			
1.	Residential	15			
2.	Commercial	25			
3.	Tourism	25			
4.	Public & Semi-public Commercial	25			
	Amenities				
5.	Industrial	20			

- **Note:-** (1) The changes in schedule of fee will be increased by 5% after a block year of 5 years as approved in 20<sup>th</sup> Himuda meeting held on 25-10-2010 vide item no-16.
- (2) In case the building plans are rejected and required to be re-submitted after attending to the objections, no extra fee will be paid. In case the objections are not removed, twice the fee will again be charged for scrutiny.
- (3) In case the building plans are approved and the applicant desires to make certain changes, he will have to re-submit the plans and again pay the scrutiny fee.
- (4) The approval of the building plans shall be valid for a period of two years from the date of sanction. In case the execution of work is not done during valid period then validity on the sanctioned can be extended further and applicant will have to pay the approval fee again or he/she may resubmit the building plans.
- (5) service tax as applicable will be charged extra.

# Form-A Application for Erection or Re-erection of Building [See bye-law-3(1)and bye laws -9]

From	
То	
	The Chief Executive Officer, H.P. Housing and Urban Development Authority, Shimla.
Sir,	
	1. I/We hereby inform that I/we intend to erect/re-erect/add/alter a building/wall or ial/residential/commercial plot No of Himachal Pradesh Housing & Development Authority Colony at
	2. I/we are enclosing herewith cash/bank draft in the name of Chief Executive, H.P. Housing and Urban Development Authority, Shimla as scrutiny fee plus able security (see bye-law-3) amounting to Rs
	3. The building plans have been prepared by (Name of Architect with Registration No.).
	4. The following documents in quadruplicate accompany this application:-
with re	(a) Plans of each floor including mezzanine if any, two elevations, two sthrough each building showing the profile of plot, the plinth level of the building spect to approach road, complete site development and detail section of foundation to of 1:100.
	(b) Layout plan of the plot showing the outline of the proposed buildings in and the lines of drainage and water supply to a scale of 1:200 for site up to 1000 meters;
	1:500 for site 1000 square meters to 4500 square meters;
	And 1:1000 for 4500 square meters and above;
	(c) Structural stability certificate.
the foll	(d) The materials to be used in the construction to be clearly specified under owing heads:

(I) Foundations	
(ii) Superstructure	
(iii) Floors	
(iv) Joinery	
(v) Roofs	
(vi) External finish	
(vii) Internal finish	
in accordance with the approved plans. by the representative of the Chief Execu Authority. I/we promise to demolish the demolished at my/our risk and cost/with 6. The building construction will be su and address in block letters)	onstruct and complete the building/ buildings exactly. In case of any unauthorized deviations as objected ative Officer, H.P. Housing and Urban Development the portion of the building or allow the same to be sout any reservations.  The provided by my/our Architect/Engineer (give name and provided by my/our Architect/Engineer).
	Signature
Dated:	Name
	Address:

ITEM:

**From-B** [ (See bye-laws-10) bye –laws13(3)]

Regd. Post

# HIMUDA NIGAM VIHAR, SHIMLA-2.

No.	HIMUDA/Admn Dated:
Fro	n:
	CEO-Cum-Secretary, HIMUDA, Shimla-2.
То	
Sub	ect:- Approval of Building Plan at Plot No in Housing Colony at
Dea	Sir/Madam,
	Approval of building plans submitted vide your letter No ir
	sing Colony at is accorded with following alations:-
1	Construction of the building be done in conformity with the approved plan duly maintaining the set backs and also ensuring that the dimensions of various components of the building are in accordance with the standards as finalized by the local authority.
2.	For the structural safety of the proposed building, it is desirable if some competent registered Architect/Engineer is associated with the proposed construction including its Supervision from time to time.
3.	The plinth levels of the building be kept in consultation with the Authority's Engineer-in-charge and the building be got inspected from him at various stages so as to ensure that the same are in conformity with the approved zoning to avoid variation beyond the permissible limits further leading to inconvenient situation of initiation of legal action by the Authority.
4.	Date of commencement of site development/construction be intimated to the Engineer-in-Charge well before taking up the same in hand.
5.	Site development including building construction should be carried out in such a manner by taking all due precautions so as to ensure that no damage is imminent to the adjoining properties/infrastructures of other allottees HIMUDA and in case the same takes place, restoration/ payment of damages shall be your sole responsibility which may please be noted.

6 Before occupying the building, it is desirable that the completion certificate is obtained from the competent authority of the Authority after which only water and sewerage connections shall be released. 7. The cost of common wall shall be fully shared by both the allottees equally and in case of any dispute, the decision of the HIMUDA authority shall be final and binding. 8. Construction of Underground Water Storage Tank for collection of rain water is essential and desirable in view of any exigency. 9. The height of boundary wall/compounding wall shall be 1.50 meter. The side walls can be constructed in stepping where the site is sloppy. No part of footing shall be laid in adjoining plot. 10. Footing of the columns & common wall appearing in common side shall have to be laid within plot boundary and no part of footing shall be laid in adjoining plot. The approval accorded subject to the condition that provision of Solar passive design shall be incorporated in the building. Accordingly, 23 Cm. thick outer wall shall be provided. 12. The approval of the building plan shall be valid for a period of two years from the date of sanction. 13. In case the execution work is not done during valid period then validity of sanctioned plan can be extended further & applicant will have to pay the approval fee again or

Senior Architect(N), HIMUDA, Shimla-2.

Copy forwarded to the following for information & necessary action along with one copy of the approved plan:-

he/she may resubmit the building plans.

1.	The Executive Engineer, HIMUDA, Division					
2.	The	Assistant	Engineer,	HIMUDA,	Sub-Division	

## FORM-C Notice of Completion of Building Works [See bye-law-12(1)]

From	
То	
a:	The Chief Executive Officer, HP Housing & Urban Development Authority, Shimla.
Sir,	
below No	I/We hereby give a notice that the building or a part of the building described and sanctioned with your office order dated has completed on in all respects according to sanctioned plans with/ without
	tions. I/We hereby submit revised building plans duly verified by concerned in the concerned and the concerned submit revised building plans duly verified by concerned and the concerned and the concerned are concerned as a submit revised building plans duly verified by concerned and the concerned are concerned as a concerned are conc
	Kindly permit me to occupy the building or a part of the buildings as bye-laws of the Himachal Pradesh Housing & Urban Development authority Building) Bye-Laws, 2017.
Encl.: 'Rev	Description of building plot No Himachal using and Urban Development Authority. ised building plans as per construction done on site. otographs of constructed buildings'
Place	e
Signature o	f the applicant
Name	
Address	

## FORM-D

[See bye-law-12(2)]

Permission bye-law-	on for occupancy of use of the building granted under clause (2) of the
From	
	Chief Executive Officer,
	HP Housing and Urban Development Authority,
То	Shimla.
10	
	Where ashas applied for the issue of an occupation
certificat	e of the building described below:
I hereby:	
grant per	mission for occupation of building;
-	visional permission of occupation for a period of six months;
refuse pe	rmission for the occupation of the said building for reasons given below;
Descripti	on of the building;
Housing	and Urban Development Authority ColonyPlot
No	
Resident	ial/Industrial/Commercial/Institutional building.
	Chief Executive Officer.
	Himachal Pradesh Housing and Urban Development
D . 1	Authority, Shimla-2.
Dated:-	the Executive Engineer, Himachal Pradesh Housing and Urban Development
	yfor information.
	,
	Chief Executive Officer. Himachal Pradesh Housing and Urban Development

Authority, Shimla-2.

## FORM-E

# Application for Sewerage Connection (See bye-laws-80)

To

Chief Executive Officer, HP Housing and Urban Development Authority, Shimla.	
Sir/Madam,	
I/We want to have sewerage connection in my /our Himachal Pradesh Housing and Urban Development Authority(Erecti Laws, 2017 and do undertake to abide by them.	
The particulars are given below:-	
Name of the areaRoadBuilding/Site	
House No Son of	
Number of seat Size of line	
Name of registered Plumbers through whom the work executed	
I hereby enclose the certificate issued by the Executive completion of sanitary installations and drainage.	Engineer regarding
INSTRUCTIONS:-	
The application should be entertained either from the owner or such pauthorized to do so by the owner who would be held responsible sewerage charges etc.	
Date	
Signature of the applicant	
Father's Name	
Address	

## FORM-F [ See form -A, 4. ( c)]

## STRUCTURE SAFETY/ STABILITY CERTIFICATE

Certified that building plans submitted for approval by Sh				
for the construction of house on HIG/MIG/LIG Plot . No measuring				
sqm. at HIMUDA Colony satisfy the safety requirements as stipulated				
under Indian Standard codes that are relevant for earthquake protection structure and the				
information given there in is factually correct to the best of our knowledge &				
understanding.				
It is also certified that the structural design including safety from natural hazards				
has been prepared in accordance with prevailing relevant IS codes by duly qualified				
Structural Engineer at least B.E. (Civil) or equivalent.				
1 Signature of owner				
Name in block letters.				
Address				
2 Signature of Architect with C.A.No				
Name in block letters.				
Address				
3 Signature of the Structural Engineer				
Name in block letters.				
Address				