

Aam Aadmi Series - 3

HOUSE BUILDING DIGEST

(Procedures and Terminologies)



bmtac

Creating Enabling Environment for Affordable Housing for All

This is an attempt by BMTPC to provide useful but often ignored information about multifarious activities involved in house construction and other technical and non-technical matters associated with building materials and construction technologies. The series is being brought out with a specific rationale to reach out to common people of our nation and make them acquainted about building construction. Every individual has a dream of owning a house and through this series which is aptly named Aam Adami Series, we will slowly unravel myths and misconceptions about building construction. The language used here is lucid and simple to comprehend. The complicated technicalities are explained in a parlance which can be understood by one and all.



PART A

House Construction - Procedures and Documents

A person proposing to construct a house on a piece of land owned by him/her has to seek necessary approvals /sanctions from a competent authority authorized for the purpose, otherwise it would deemed to be an unauthorized construction.

The Central or State Government notifies an Urban Local Body, Development Authority or such other institutions / organizations, as the case may be, to give permits/approvals for construction of a house. These notified bodies frame Building Bye-laws and the construction has to be carried out within their framework. These Building Bye-laws apply to the building activity in the State/Urban Center/Town for which they have been framed.



Building Bye-laws

Building Bye-laws are basically meant to regulate the coverage, heights, architectural and engineering designs etc with a view to have an orderly development. They help us in protecting the house against hazards like earthquake, fire, noise, structural failure etc.

For the purpose of getting acquainted with the procedures and terminology connected with the construction of a house, BMTPC is bringing out the third publication in the series. This is for general guidance only and shall have no legal standing in any court or otherwise.





Steps for House Construction

In the first instance the person constructing a house has to notify to the concerned Authority that he/she intends to undertake construction within its jurisdiction. This notification has to be given on a standard form as prescribed by the Authority.

The application form has to be accompanied by a number of documents including Plans and certificates, in sufficient numbers. Although different Authorities may have different yardsticks, four to six copies of the Plan are generally required. It is advisable to keep some extra copies of these Plans for use as and when required.

Type of Plans

The type of Plans generally required include the location plan, site plan, building plan, services plan, specifications and certificate of supervision, estimates, ownership title and other documents as may be prescribed by the Authority.

Key Plan

A key plan shows the boundaries and location of the site with respect of neighborhood landmarks.

Building Plan

The plans of the building, elevations and sections of the building including floor plans of all floors together with the covered area, clearly indicating the size and spacing of all the frame members, sizes of rooms and the position and width of staircases etc. form part of the building plan.

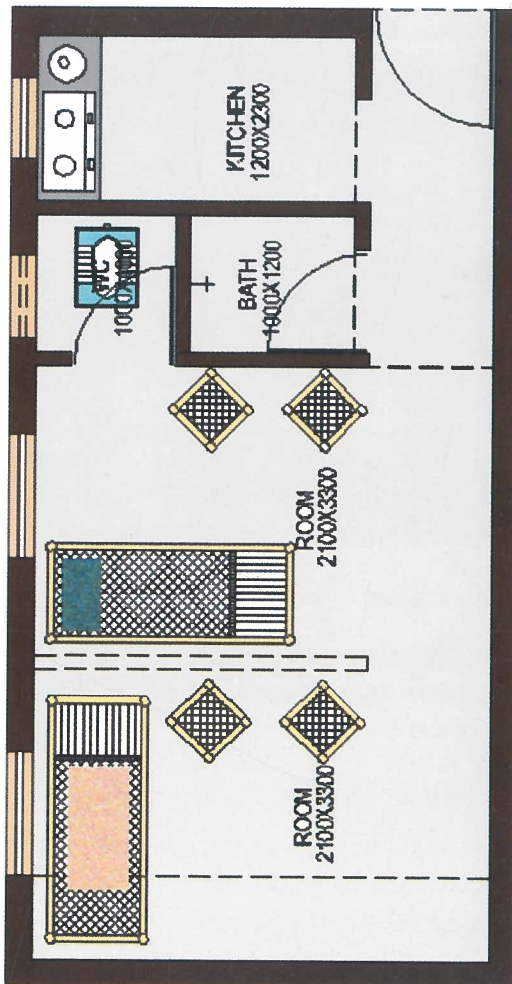
It also includes sectional drawings showing clearly the sizes of the footings, thickness of basement wall, wall construction, size and spacing of different members, floor slabs and roof slabs with their materials. The sectional drawings also indicate various heights of





building & rooms and also the heights of the parapet, drainage and the slope of the roof. At least one section shall be taken through the staircase, kitchen and toilet, bath and W.C.

The elevations, terrace plan indicating the drainage and the slope of the roof also form part of the building plan.



Typical Floor Plan





Documents for Submission

Application for building permit is normally submitted along with documents pertaining to ownership, key plan, site plan, building plan, construction specifications, estimates and such other documents and certificates as may be required by the Authority for granting the permit. Accordingly, it is advisable to go through the Building Bye-laws of the Authority, before proceeding for the actual construction of the house, which encompass all the details.

Signing of the Documents

All documents and plans have to be signed by the owner as well as a qualified Architect and/or such other professionals, as defined by the Authority. The signing of the documents is a testimony that the building plans and other such details being furnished adhere to the prescribed Building Bye-laws of the Authority.

Building Permit Fees

Building fees are prescribed by the Authority in relation to the type of construction, area etc which are also to be deposited along with the application for obtaining the Permit for construction.

Validity of Sanction

The sanctions of the building permits are valid for a specific period of time which may be for three years or so from the date of sanction, as may be defined by the Authority.

Commencement Notice

After obtaining the building permit, the owner is expected to give a notice for the intention to commence building work at site, on a standard form prescribed by the Authority.





Inspection of Works

Once the work is in progress, the designated Authority is entitled to carry out inspection of the building works at different stages of construction and the owner has to keep the Authority informed as would have been stipulated in the Bye-laws. This is primarily with a view to ensure that the construction is proceeding as per the sanctioned/ approved permit.



Completion Notice

On completion of the building, the owner has to submit a notice of completion to the Authority regarding its completion as described in the building permit.





Completion Certificates

When building works are complete, the owner has the responsibility to make an application for a Certificate of Completion in the form prescribed by the Authority. The designated Authority would carry out an inspection on a specified date to ascertain whether the works have been carried out as per the documents submitted.

Owners Liability

The owner is fully responsible for carrying out the works as per the applicable Building Bye-laws. It is in the interest of the owner to build the house as per the approved permit and follow all other stipulated instructions during the construction process as prescribed by the Authority.

Other Issues

Services of qualified professionals like Architect/ Engineer etc. can be availed by the owner to facilitate preparation of building plans, specifications and estimates, obtaining permits from the designated Authority, carrying out structural designs, supervision of works etc. The qualifications of such professionals are generally notified by the Authority.

The detailed procedures to be followed during the construction of the house as also the application forms and certificates etc, are contained in the Building Bye-laws of the Authority. Therefore, building by-law are the most important and essential guidelines to be followed by the prospective builders.





PART B

Terminologies in House Construction

There are a number of terms which are commonly used in construction of a house. Some of these are brought out here for basic understanding of the house owner. These terms are defined in variety of ways by different Authorities and, therefore, terminology given here may be taken for guidance purposes only.

Owner

An owner is a person or body having a legal interest in land and/or building thereon.

Dwelling Unit

A dwelling unit can be said to be an independent housing unit with separate facilities for living, cooking and sanitary requirements.

Set-Back line

A line usually parallel to the plot boundaries and laid down in each case by the Authority, beyond which nothing can be constructed towards the plot boundaries is called the set-back line.

Permission or Permit

A written and valid permission or authorization given by the Authority, for carrying out the development / construction of the house within the framework of the Bye-laws.

Basement

The lower storey of a building below or partly below the ground level.

Plinth

The portion of the structure between the surface of the surrounding ground and the surface of the floor, immediately above the ground.





Plinth Area

The built-up covered area measured at the floor level of the base of any storey.

Covered Area

Ground area covered by the building immediately above the plinth level

Floor Area Ratio (FAR)

The figure obtained by dividing the total covered area (plinth area) on all the floors by the area of the plot. The FAR gives the total area which can be covered in a plot.

Carpet Area

Covered area of the useable rooms at any floor level excluding the area of the walls

Super Built-up Area

Most of the Builders/Developers are currently selling flats on what they call 'Super Built-up Area' basis. Although there is no specific definition of the term, Super Built-up Area can usually be said to be the built-up area plus proportionate area of common areas such as the lobby, lifts shaft, stairs, etc. The plinth area along with a share of all common areas proportionately divided amongst all unit owners usually makes up the Super Built-up area. Sometimes it may also include the common areas such as swimming pool, garden, clubhouse, etc.

It is however advised to know the carpet area and/or plinth area of the dwelling unit before purchasing the flat.

Foundation

The part of the building structure, which is in direct contact with ground which transmits the loads over it.





Footing

A foundation unit under the base of a wall or column etc, for the purpose of distributing the load over a larger area.

Damp Proof Course

A course consisting of appropriate water proofing material provided to prevent penetration of dampness or moisture, normally provided at the plinth level.

Floor

The lower surface in a storey on which one normally walks in a building, and does not include a mezzanine floor.

Habitable Room

A room occupied or designed for occupancy for human habitation and incidental uses, but excluding kitchen, bath room, water closet compartment, laundry, serving and storing, pantry, corridor, cellar, attic, store room, pooja room and spaces not frequently used.

Water Closet (W.C.)

A privy with an arrangement for flushing the pan with water, not including a bathroom.

Superstructure

The portion of the building constructed above the plinth at ground level.

Room Height

Vertical distance measured from the finished floor surface to the finished ceiling surface.

Concrete

A mixture of cement, sand and aggregates mixed with water to form the construction material, used at the base of foundations etc.





Reinforced Cement Concrete (RCC)

The concrete along with steel reinforcement normally in the shape of round bars, used for construction of columns, slabs, beams etc. in a house.



Specifications

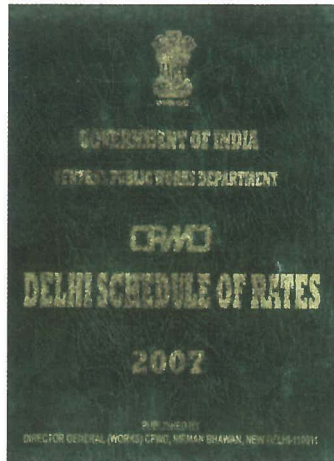
Specifications would broadly relate to the description of materials, along with their properties, to be used in the construction of various elements of a house say foundations, walls, roof etc. Dimensions like depth of foundations, thickness of the walls, floors, roofs, parapets etc also form part of the specifications. They would normally also include the nature of protective treatments to be carried out against termites, rain etc., the measures to be taken for making the house safe during natural calamities like earthquakes, winds, floods etc., and also the measures for fire protection.





Estimates

The estimates for the house are based on the specifications being adopted for construction. They are normally prepared in two parts, one bringing out the details of quantities involved and the other bringing out the abstract of costs. The rates for construction are normally based on published rates of the “Schedule” being brought out by the Housing and Development Central/State Government Authorities/ Agencies from time to time. Copies of such “Schedule of Rates” are normally available for purchase.



Estimates for basic services in the house including electricity, water supply and sanitary are made separately from the main building estimates and they all added together will bring out the complete estimate for cost. The actual cost of construction may vary depending upon the fluctuations in cost of building materials, labour rates during the actual construction process.

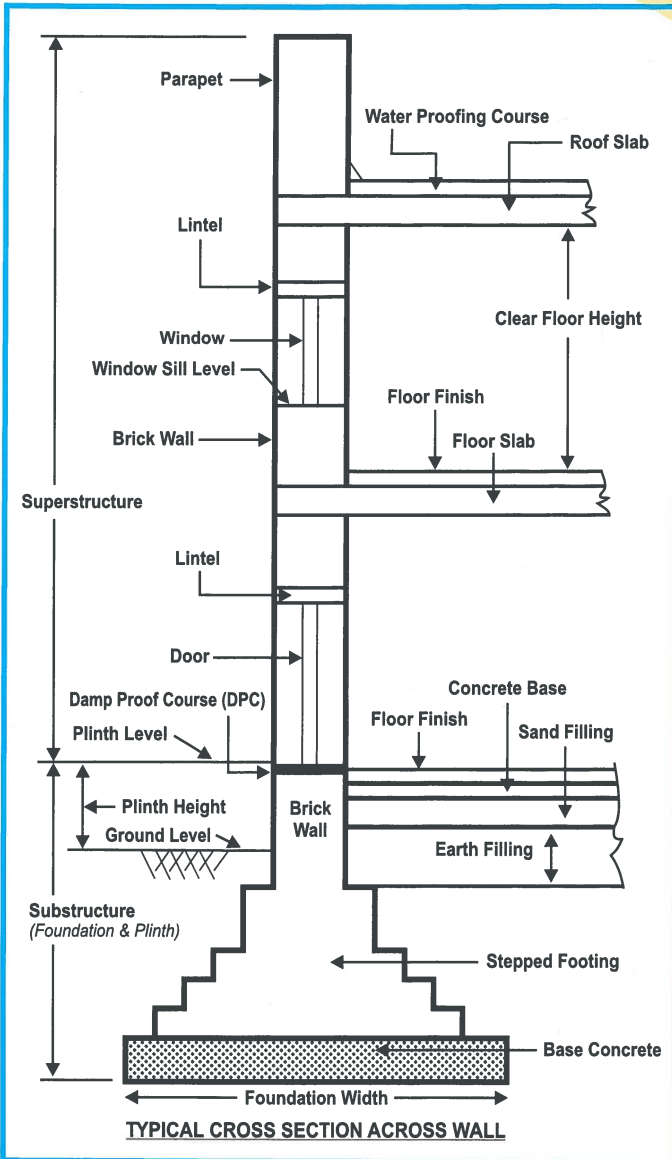




Conclusion

The digest would serve as a guide to the house builder and it has no legal bearing. The local Building Bye-laws would give the exact interpretations of the procedures and terminologies.





This is third of BMTPC 'House Building Digest Series' for creating awareness about construction of a house.



BMTPC

The Building Materials & Technology Promotion Council (BMTPC) was setup in 1990 as an inter ministerial organisation under the Ministry of Housing and Urban Poverty Alleviation to bridge the gap between the laboratory research and field level application.

VISION

BMTPC to be world class knowledge and demonstration hub for providing solutions to all with special focus on common man in the area of sustainable building materials, appropriate construction technologies & systems including disaster resistant construction.

MISSION

To work towards a comprehensive and integrated approach for promotion and transfer of potential, cost effective, environment-friendly, disaster resistant building materials and technologies including locally available building materials from lab to land for sustainable development of housing.

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