

Design and Drawing for Multi Storied Apartments for High Income Group

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ABSTRACT

Problem is becoming acute day by day and the valuable urban land is shorting at a very fast rate with the growing demand of increasing population. The conventional low rise development cannot meet the rising demand of more number of dwelling units per unit area so the only solution is high rise development with enough open spaces around the buildings for proper light and ventilation.

In any developing country like housing is one of the most important problems faced by the several people particularly the urban mass as the valuable urban land is becoming scarce at a very fast pace along with the growing demand of increasing population. The conventional low rise development cannot meet the rising demand of more number of dwelling units per unit area so the only solution is high rise development.

KEYWORDS: *In any developing country like housing is one of the most important problems faced by the several people particularly the urban mass as the valuable urban land is becoming scarce at a very fast pace along with the growing demand of increasing population. The conventional low rise development cannot meet the rising demand of more number of dwelling units per unit area so the only solution is high rise development with enough open space ground the buildings.*

INTRODUCTION

Man started living in caves and also took shelter under the trees. But there was no safety as such, because the wild animals could approach to the caves and trees. With the natural inspiration he found that 'living on the tree' is more safe and he started living off the ground. **(Ref. Architecture without Architects.)**

Also due to heavy foods in the regions like Indus valley, china, babylonia etc. man started living off the ground to save upper level his life against such natural forces. So he built the huts on stilts and today also we find such type of huts at many places.

RELEVANCE OF THE PROBLEM:

- Scarcity of land.
- land price maximum.
- So many people are accommodated in smaller piece of land, So it is multistoried, only solution is multistoried. Apartments.
- Because land price is high, it is beyond the scope of other income groups to buy flats, so it is to be made for Higher Income Group.
- The demand of Higher Income Group, because Low Income Group, Middle Income Group housing are already existing around the site.
- The Higher Income Group people for more space for their livelihood and hence to meet with their demands over a small piece of land is challenging from planning point of view.

How to cite this paper: Dr. Mukesh Kumar Lalji "Design and Drawing for Multi Storied Apartments for High Income Group" Published in International Journal of Trend in Scientific Research and Development (ijtsrd), ISSN: 2456-6470, Volume-5 | Issue-3, April 2021, pp.482-484,



IJTSRD39847

URL:
www.ijtsrd.com/papers/ijtsrd39847.pdf

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SCOPE AND CONSTRAINTS

- The area required for H.I.G. varied in different conditions in different regions so, it is difficult to deal with any specific area.
- In this work I have followed the provisions and buildings bye laws of master plan of Bhopal.
- I have also followed the data collected from the present user's and whatever information's and got, are incorporated in this thesis design.

OBJECTIVES:

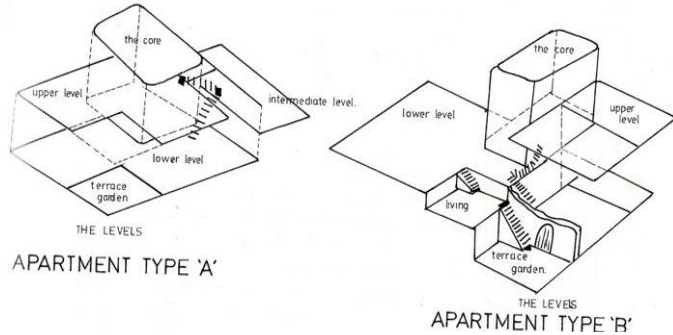
- To create an environment free from noise, nuisance and air pollution.
- To create a healthy and comfortable environment both physiologically and psychologically for the people.
- Physical, social and Psychological.
- Open Space.
- Services.
- Floor occupation.
- Climate.
- Economic.

ANALYSIS OF SITE

- Topography.
- Soil Conditions.
- Natural Drainage.
- Plantation.
- Air movement.
- Temperature.

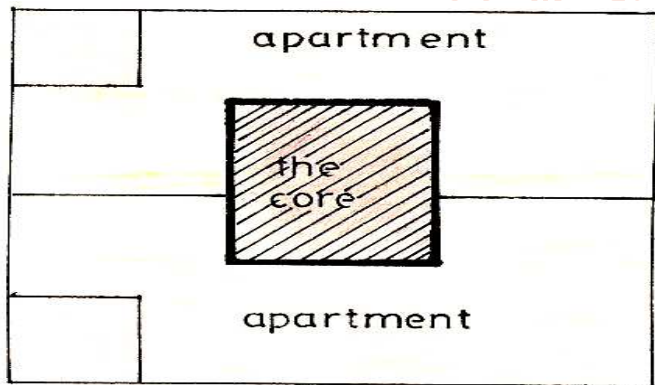
DATA COLLECTION OF THE SPACE REQUIREMENT PHYSICAL, SOCIAL AND PSYCHOLOGY SOCIO ECONOMIC

- Migration.
- Income range.
- Occupations.
- Means of transport.
- House ownership.
- Average size of house hold.



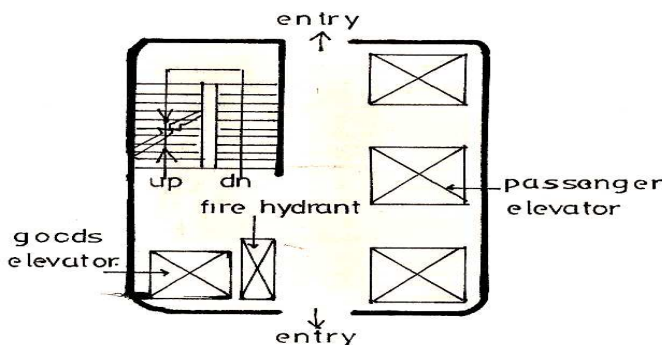
Sketch Plan:

The care: A central zone, provides access to the apartments on every level which encompasses the core from all sides. The planning, thus becomes an introvert one, with the core as only means of exit. An interesting feature is the absence of fire escapes in a tower of this magnitude.



Sketch Plan

Core Detail: All services and facilities alike: passenger lifts, goods lift, staircase, fire hydrants and sprinklers, electric conduits, etc. are housed in this central core. There is 8 single staircase and three passenger elevator's and one goods elevator's There entry/exist are provided in this core. The one on the north and south sides from The main entry to the individual apartments units, while one the east is the common entry to both apartments. Kitchen



SOCIO - PHYSICAL ASPECTS:

Density:- It is one of the most important aspects in multi-storey buildings. This factor alone governs the other factors,

it tries to increase gap between urban pattern of living and rural environment; it affects the traffic, it governs the open spaces.

Urban pattern:- Due to the increase in number of sky scrappers the definition of urbanity is completely changed. A city having more sky scrappers is physically more urbanized. For example; Bombay is a city of sky scrappers, Mainly due to this reason it is supposed to be the most urbanized city in India. This has fantastically increased the gap between urban and rural environment.

Traffic:- Traffic-speed is considerably increased due to the vertical buildings. In horizontal development traffic has many obstruction points at each individuals house. But due to a few tower-blocks, the distance between the two blocks is considerably increased and the points of obstructions get minimised which ultimately results into increase in the speed of vehicles.

Open spaces:- Due to residential high rise buildings, there is a considerable change in the concept of open spaces. In horizontal development the open spaces are mostly private around one's house and common garden between the locality. But with the intrusion of residential tower blocks most of The open spaces become public-space and the common open space given to a group of vertical blocks is considerably increased.

Social-Congregation:

A. Group Contacts: These mainly depends on the daily common use of facilities. Stair-cases, lifts are always used by individual for very small time in a day. So the group contacts in this small time are very temporary nature. These contacts cannot be developed more, and hence are very secondary and of feeble nature.

B. Mass Contacts: Mass contacts are possible in public open spaces, garden etc. Where the Together in large masses. Therefore social congregation is there, but individual contacts are lesser comparatively. But the possibility of regid contacts is more between the people from the same block.

SOCIO-PSYCHOLOGICAL:

Feeling of urbanity: No doubt that the feeling or urbanity has increased due to the introduction of vertical buildings. Particularly, people coming from rural areas to urban area, feel it more seriously. The rate of development of rural areas is constant but the rate of development of urban areas has been increased enormously.

SITE:

Site Planning of the apartment project is the art of creating an external human environment conducive toe comfortable and pleasant living. It is the arrangement of buildings, of all spaces for outside activities, of streets, walkways, parking, drive ways etc. all related to the physical conditions of the site and to the available utilities.

It deals with nature transformed to relate to man's need for shelter and all the aspects of it. The site planning is an art with high degree of flexibility and in the final analysis the imagination, talent and philosophy of the designer will determine the end result.

How to start Design of building

The site plan is very much a part of the entire scheme and should be conceived simultaneously with the design of the building.

The following factors will influence the solution to a site plan:-

- Program of requirements.
- Zoning.
- Type of buildings.
- Topography.
- Orientation.
- Security
- Vehicular /pedestrian circulation.
- Amenities /Recreation.
- Land scaping.

THE PROGRAM OF REQUIREMENTS:

It will stipulate the elements to be incorporated into the project. Most pertinent for the sit plan will be the designation of the outside elements viz. play, recreation area, seating, parking etc. This information along with the zoning requirements and an analysis of all the existing site conditions give the planner a basis for starting his layout.

HEIGHT OF BUILDINGS:

A key factor in determining a site plan is the height of the building which will be strongly affected by the allowable density and coverage.

Now what comes first the building design or the site plan? And how can you layout a site plan without having a building design? The element of trial and error comes into play at this point. Different shapes, sizes, and heights should be explored to determine what volume, the site best. Scale and proportion are vital factors in this overall effect.

LAND SCAPING:

Land scaping is the visual site effect that merge with the architecture to create a total environment. It combines the natural features of the site with the man-designed land scape. The treatment of all the outdoor spaces in terms of pattern, color, texture, volume and rhythm all contribute to the esthetic of the project. The selection of paving material the design of walls, the selection and placement of trees, shrubs, planting and ground cover and the use of site features supplement and become part of the entire architectural scheme.

Land scaping by natural is loose and informal as contrasted to the structures which are rigid in Their 3-dimensionoal form. Therefore land scaping can be skillfully used to soften and blend in with the architecture, making it a unit.

Other factor influencing the solution to site plan are:-

UTILITIES:

Water supply, sanitation. Electricity and lighting. Lighting is a part of land scaping while for other utilities care should be taken in laying out the systems for pipes, and water supply etc. Altogether should be well laid without impairing the esthetics and total environ.

FIRE HAZARD

No building is absolutely fire safe. However a total fire safety system designed and integrally constructed within a structure can improve its relative safety.

ELEMENTS OF A FIRE SAFETY SYSTEM:

- Fire and smoke detectors.
- Fire resistant building materials.
- Fire safe stair-well and lift well.
- water stand points
- Safety floors.
- Emergency generator.

- Voice alarms.
- Fire walls for compartmentation of floor area.
- safety areas.
- Automatic elevator recall.
- Fire protection plan.
- All equipments should be well efficient and well located.

CONCLUSION:

We have seen that a man living high is a dominant and rich person, a city having vertical buildings is supposed to be the most urbanized city. In city. In the same manner a country having max. Vertical development is supposed to be the dominant, richest and United States, Japan, France and the clear proofs of this fact.

RECOMMENDATIONS

- To provide better living conditions to the general public a lot of infrastructure is needed which is often neglected by builders/promoters.
- To avoid this situation bye laws are required to safe guard the public interest.
- However, the Municipal Corporation has not proposed any such bye laws regarding parking, garbage disposal etc. These facilities as provided in the proposal should be included in the local bye laws.

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