

TYOLOGY AND PLANNING OF RESIDENTIAL BUILDINGS. ELEVATOR-FREE HOUSES.

ВНТУ

Анотація:

У статті розглянуто типологічні ряди будинків, що не мають ліфтів, що представляють собою мережу самостійних типів, кожен з яких володіє специфічними ознаками. Досліджено перспективи та етапи розвитку логічного моделювання, планування та документації у бідвництві.

Ключові слова : типи будинків, планування, типи квартирних побудов.

Abstract :

The article considers typological series of houses that do not have elevators, which are network of independent types, each of which has specific characteristics. Prospects and stages of logical modeling, planning and documentation in proverty are studied

Keywords : types of houses, planning, types of apartment buildings.

The typological series of residential buildings that do not have elevators is a network of independent types, each of which has specific characteristics. It is based on two groups of houses, differing in spatial planning construction and, mainly, the nature of the connection with the environment. The first group includes residential buildings with a direct connection of apartments with the territory. These are one-apartment and residential two-apartment houses with private plots and outbuildings, which are commonly called manor houses and multi-apartment block houses, consisting of blocks with different numbers of apartments, each of which has a separate exit.

Another group of elevator-free houses are multi-apartment buildings with exits from the apartment through common communications, stairs, galleries and corridors. Depending on the accepted combination of apartments and ensuring their connection with the surrounding area, residential buildings of this group are divided into sectional, gallery and corridor types.

Thus, residential buildings are divided from architectural planning into six groups:

- Residential buildings of sectional type
- Blocked residential buildings
- Residential buildings of gallery type
- Residential buildings of corridor type
- Residential individual houses
- Mobile homes.

One-, two-apartment residential buildings with homestead plots, individual and auxiliary outbuildings are called manor houses. The organic connection of apartments with the estate and outbuildings, the inseparability of functional ties between them determine the integrity of the entire structure of the house. Planning should provide a clear functional division of the apartment into two zones: residential and commercial. The isolation of the premises connected with the farm from the living part of the apartment is of great importance for the manor house. Therefore, usually arrange two entrances to the house - the main from the street and additional from the yard. In contrast to apartment buildings, even low-rise, manor houses have high hygienic qualities, the most complete meet housing requirements. They provide good insolation and

ventilation of all rooms due to the fact that the apartments have the largest light front - on all sides or in two-apartment houses on three sides. Isolated construction of the building on the land contributes to the comfort of living. The same requirements are set for the internal engineering improvement of manor houses as for urban type houses. Taking into account the natural and climatic features of the construction site in creating the necessary comfort of living - one of the most important requirements when designing a house. It is especially important for low-rise construction, as the impact of the external environment on a small building increases due to the relatively large area of fencing surfaces per unit of total area of the house. Blocked houses - low-rise residential buildings, consisting of a number of residential units, each of which has a separate entrance and a separate garden plot. A block of flats can be one-, two-, and three-story and consist of one or more blocks - indivisible spatial planning elements, composed of different numbers of apartments. This type of housing has all the advantages of an individual house and at the same time has higher economic indexes. The plot, as with an individual house, is part of the home, its green open living space. On the site, depending on its size, there may be a flower garden, garden, vegetable garden. Unlike other types of apartment housing in apartments of blocked type of houses can be provided with utility rooms. Blocked houses, as a rule, have unlimited orientation around the world. This provides good conditions for insolation, lighting, as well as through or corner ventilation. In addition, the lack of restrictions on the orientation of the apartments allows you to freely place the house on the ground, to create the most diverse planning decisions.

Apartments in block of flats have two entrances. This is necessary for communication with the area, part of which is in front of the house on the street side, and part - behind the house. Simplicity of constructive schemes of the blocked houses, repeated repeatability and limited number of elements of designs in them promotes the maximum standardization of constructive elements.

The architectural and planning composition of a block of flats depends, as in any type of housing, on a number of conditions. The rural type of house implies the presence of a subsidiary farm and the appropriate planning of the apartment, while the urban type of house has a different organization of apartment plots. Blocked terraced houses are used for construction on difficult terrain.

The main structural and formative unit of a block-type building is a block, which is a complete spatial planning element, both in terms of construction and engineering. Residential buildings are formed by a combination of the same or different types of apartments and storeys.

The main type of block - ordinary, the side walls of which are always adjacent to neighboring blocks. Entrances to them are usually made on two sides.

At the edges of the houses are the end blocks. One of the transverse walls of such a block is internal, blocked, the other - external.

In houses of a difficult configuration use rotary blocks. They can be deployed at both obtuse and right angles. The general disadvantage of such blocks lies in the complexity of the organization of apartment plots. The most common type of block - one-apartment, or, as it is called - "block-apartment". In block of flats, as a rule, three main types of apartments are used:

- One-storey - in two-storey blocks
- One-storey - in two-storey blocks (floor apartments)
- Two-storey (cottage type) apartments

There are other types of apartments, such as two-storey with incomplete second floor, apartments with one-way orientation, apartments with a difference of levels, three-storey apartments.

One-storey block of flats. The blocks that make up such houses are usually one-, two-, and three-room, less often four-room.

One-room block apartments have the same type of layout. The entrance to such a unit is often made in the middle zone, as the unit is used relatively rarely and is placed at the ends of houses.

In two-room block-apartments living rooms can be located both on one side and on different sides of the

block, in three-room - on both sides.

Two-storey blocks with two-storey apartments in the block. When designing blocked houses with small apartments, their superficial location is used. This construction of houses is used in cases where it is necessary to achieve a high density of buildings in small apartments. The superficial location of the apartments has significant disadvantages. For families living on the second floor, communication with the site is difficult, they do not have a basement, it is difficult to arrange summer facilities.

There are several schemes of planning the blocks depending on the location of the entrances to the upper and lower apartments:

- At the common entrance to the upper and lower apartments
- At separate entrances from one side of the house
- At entrances from different sides, from opposite or in the end block of one of the facade, the other from the end.

Two-storey blocks with apartments on two levels. The most common type of block house is a house with apartments located on two levels. The location of the premises on two levels provides clear zoning: the lower floor is allocated for the common room, kitchen, utility rooms, bathroom, the upper - for individual use. The planning organization of the block of flats is determined by its position on two opposite sides of the block, the need to pass from the street to the site, as well as the position of the stairs.

Three-storey blocks. Three-storey block houses have been developed to increase building density. There are several methods of planning the organization of these blocks. The traditional way of planning a cottage - when the ground floor is a kitchen, common room, front and household. Rooms. In the upper two - living rooms with bathrooms. Another technique, more commonly used, is the location on the ground floor of the front and utility rooms with garage. Living space occupies the second and third floors.

Blocks with one-way apartments. Each block consists of two paired apartments facing opposite sides of the house. Buildings in them usually have a high density, but the houses of such blocks can be located only in the meridional direction, as all apartments in ordinary blocks have a one-way light front. Here is the inevitable location of houses in the depths of plots, and outbuildings - on the border with the street.

Cross-shaped blocks. Dwelling houses formed of cross-shaped blocks are used when a high building density is required. Such blocks usually consist of four one-storey or two-storey apartments with two-way orientation, through or angular ventilation. In terms of blocks are simple and complex configurations. To block each block must have at least two deaf end walls. If in the cross-shaped block all external walls have window apertures, then such block is a four-apartment house.

The issue of transformation of apartments is of great importance in connection with the requirements of comfort for families of different demographics. The possibility of transformation improves the quality of architectural and planning solutions of the apartment and allows to increase the term of its moral depreciation.

The variability of the solution of the apartment in the same dimensions is due to: the presence of a wide step of the transverse load-bearing walls, the size of the area is not less than 34 m², bilateral orientation and the nature of the window openings. Rational use of wide pitch for transverse load-bearing walls. This ensures the freedom of variability of apartment planning by the residents themselves due to the transformation of load-bearing partitions.

By different arrangement of ordinary, cabinet or sliding partitions (in the stationary position of the bathroom), the convenience of home comfort for families of different demographics is achieved.

There are opportunities to allocate individual space for each family member, the organization of the hall-front with hallway-locker room, the allocation of dining room, utility room for classes of interest.

Multi-storey buildings are the most popular type of construction. They must meet many requirements: functional, constructive, artistic.

The most general requirements for multi-storey buildings of all types - to ensure fire resistance and durability of structures. Therefore, for houses above five floors, the range of building materials of the supporting

skeleton is limited to stone, concrete and reinforced concrete materials.

The wall load-bearing skeleton is the most common in the construction of multi-storey residential buildings. All three systems are used: with transverse, longitudinal and cross walls. The predominant construction system is large-panel.

Structural systems with a transverse arrangement of load-bearing structures are used more often. The main drawback in the decision of the plan of a house is the rigid position of the transversely located supports, which complicates the free distribution of the apartment.

Load-bearing walls located parallel to the longitudinal side of the dwelling house do not affect the size of the living quarters, which are separated from each other by partitions that do not have load-bearing functions. However, rigidly fixed longitudinal walls of a residential building create difficulties in solving the facades.

- Floors · Number of apartments in the house, including one-room · Living area of apartments in the house · Area of apartments in the house
- Area of summer premises (according to the reduction factor)
- Total area of apartments in the house
- Building area
- Construction volume of all and including above the mark 0.00 and below the mark 0.00
- Area of built-in non-residential premises

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