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# METHODICAL INSTRUCTIONS FOR THE IMPLEMENTATION OF THE PROJECT OF VOLLEYBALL AND BASKETBALL SPORTS FIELDS IN ACCORDANCE WITH THE EARTHQUAKE FORCES

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When drawing up a project of buildings that withstand an earthquake, their planned appearance tends to be symmetrical, as well as to achieve a uniform distribution of mass and Sturgeon. It is necessary to place the walls and frames symmetrically in relation to the longitudinal and transverse axes of the building. In this way the torsion oscillations are picked up or put an end to their development.

Longitudinal and transverse walls should overlap on a continuous basis over the building plan. In the plan, the divorced (severed) wall can cause damage to the second wall adjacent to itself. If for some reason the continuity of the wall is required, then its constructive continuation can be obtained in the form of structure.

It is desirable that the building plan is as simple as possible. In the plan, a circle, a regular polygon. square or rectangular buildings are superior to complex-shaped buildings in resistance to earthquake forces. If, according to the requirements of Architecture or exploitation, it is necessary to restore a building of a complex shape in the plan, then it is necessary to disassemble the building into simple-shaped parts by means of antiseismic beams. The walls and constructive elements of simple-shaped buildings have mutual equal or Close consistency and stigma in different directions; therefore, in any direction of horizontal seismic force, such buildings have equal resistance. Such buildings are also well tolerated by torsion vibrations. The viewing Hall of the art Palace in Tashkent was in a circular shape in the plan, despite the fact that it was located close to the epicenter, it perfectly coped with the earthquake of 1966.<sup>1</sup>

In the norm, if some children of the building with excessive length fall into different phases of vibration, the seismic effect is suppressed. For this reason, Long buildings are divided into small parts (otsecs) with the help of antiseysimc sutures. From the point of view of the clamping point, antiseismic sutures are added with tempering and deposition sutures, that is, the tempering suture acts as both an antiseismic and a deposition suture at the same time. Unlike collapsible beams, antiseismic beams do not have to be separated along the entire height of the building: they can leave the foundations intact without breaking. Depending on the constructive solution of the building, antiseismic sutures are obtained in the form of a double wall or a double column (column).

The width of the antiseismic joint depends on the height and bikrity of the building. In buildings with a height of up to 5 m, the width of the seam should not be less than 3 cm. In a high-rise building, the width of the seam is 2 cm every 5 m. In addition, the seam should be smaller than the double value of the maximum silage of the building. Antiseismic sutures should be applied to allow the separated section to vibrate (vibrate) freely. Otherwise, the parts of the army can be hit mutually and severely damaged.

The distance between the antiseismic sutures and the height of the staining is determined by the norms of construction.

On the border of one otsek it is desirable to take the height of the building one by one. Getting the height of a part larger leads to an increase in the mass of the same part and, in turn, an increase in the amount of seismic force; this requires an increase in the cross-sectional dimensions of the elements of that part.

<sup>&</sup>lt;sup>1</sup> Тураев Х. А. АЙЛАНИШ СИРТЛАРИНИНГ СОЯЛАРИНИ ЯСАШ ОРҚАЛИ ТАЛАБАЛАРНИНГ ФАЗОВИЙ ТАСАВВУРИ ВА ТАФАККУРИНИ РИВОЖЛАНТИРИШГА ОИД МЕТОДИК ТАВСИЯЛАР //Science and Education. – 2020. – Т. 1. – №. 8.

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Naturally, each of the different constructive systems differs from each other by its specific aspects. Therefore, in the next paragraphs we will get acquainted with the characteristic requirements imposed on buildings with concrete structures.

**Brick -walled buildings.** The experience of earthquakes shows that if properly calculated and properly designed agarticles are restored in full compliance with the rules of construction, brick-walled buildings will also be able to withstand seismic forces sufficiently.

All load-bearing structures (longitudinal and transverse walls, closures) are firmly connected with each other, while the building provides resistance to the forces of earthquakes as a whole spatial construction. If this link is not available or is weak. longitudinal walls can be separated from the transverse walls and in some cases fall apart. Behind the wall, oraopments are also pressed completely or partially. In buildings where anti-seismic measures are not applied, many such phenomena are encountered. Special constructions are used, which are tested for the unscientific preservation of buildings in an earthquake. For example, around the perimeter of the building, antiseismic belts are processed, the clamps are neatly connected to each other and walls, fittings are laid on the corners of the walls and on the intersecting lands, etc.

Brick get acquainted with the main constructive measures aimed at increasing the seismic strength of walled buildings.

In general, antiseismic measures applied in brick-walled buildings, on the one hand, are aimed at increasing the bonding of individual constructive elements between them in order to ensure the joint performance in the process of earthquakes, on the other hand, increasing the self-strength of load-bearing structures.

In the seismic district, too, materials are used for the foundation from which the antiseismic a writing style is applied. Bunda is limited only to the use of a large stone with an entire smooth surface that does not crumble: they can be used in one-story buildings with a height of up to 5 m in 7-point zones. The depth of the foundation is also obtained as in the noseismic districts.<sup>2</sup>

If the foundations are columnar, then they are all interconnected with the help of continuous reinforced concrete used beams. The gidroisolation layer, laid under the Brick walls, is treated with a cement mortar. It is not allowed to use roll materials such as full, ruberoid, as a gidroisolation layer.

**Large block buildings.** The general requirements for the maintenance of seismic strength of brick-walled buildings, considered above, are also related to large-block buildings. The role of constructive measures and closures, which ensure the operation of the entire block in resistance to earthquake forces, is unequivocally great.

The number of rows in the wall depends on the size of the block. For seismic zones, the option, in which the number of blocks is two, is purposefully counted.

One of the measures that will ensure the seismic strength of large block buildings is the method of applying vertical fittings on the edges of the block. Fittings cuttings are made from the foundation along the groove bars, left on the side edges of the wall blocks, to the cornice. For vertical fittings, special holes are left in the blocks of wood. After the armature is transferred, concrete is laid on the bars. Fixture cuttings are welded to the scoops fastened to the block.

The advantage of two-lane silikalite block buildings developed by Glavgolodnostepstroy and widely used in rural construction of 0 Uzbekistan is that they are used in longitudinal and cross-walled adjoining areas as well as angular blocks. Vertical beams are reinforced from the foundation to the rounding belt of the attic closure. A dowel is formed from hooks that protrude from the side surface of the wall blocks. Once the fittings cuttings are installed, the vertical cylindrical gap between the blocks is filled by pouring concrete.

Another of the measures that increase the seismic strength of large block buildings is an indicator of laying reinforced concrete cut between the blocks. To do this, a vertical element of the cut is inserted between the wall blocks, and a horizontal element between the wood block and the closure. In order to connect the Cut elements, the aramtures are reciprocated, and then the beams are filled with concrete.

The surface of a holistic sealing plating scratch depends on the thickness of the wall panels. If the Panel thickness is 12, 14 and 16 cm, the scratches are taken at least 5, 5.6 and 7 cm. The cladding panels are rolled on top of the wall panels, wrapped in a layer of cement mortar, the brand of which is more than 100 pieces. This ensures that the weight of the upper floor elementals is transferred to a norm on all scratch surfaces to the walls of the lower floor.

**Cut (sinister) buildings.** Sinkhli imatrats 0 ' rta has been used in Asia since very ancient times. Sin from various wood materials in the periods when it was sinched. History has confirmed many marotaba that such a building is resistant to the effects of earthquakes. Therefore, it is absolutely natural that the idea of cynicism penetrates into the modern building with bold steps.

Science and technology developed, and the emergence of progressive building materials, such as metal, reinforced concrete, in the building was also reflected in sinfulness. Now the buildings are being restored from steel or reinforced concrete pits, and not from wooden pits. Since the physico-mechanical properties of the new material, the possibilities of its application are radically different from the wooden materials, the constractive schemes of sinkers, which are processed from this, are also different from awalgias. Below are mainly mentioned about reinforced

<sup>&</sup>lt;sup>2</sup> Afzal Y. A. M., Turayev K. A. Technology of execution of modern urban project (example Bandikhon district) //Science and Education.  $-2021. - T. 2. - N_{\odot}. 4. - C. 125-130.$ 

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concrete and, in part, Steel sintered-cut staining structures. From now on, we will use the term" cut", which has become accustomed to the morals of the term" sinch " in the modern technical literature.

Calculation and design principles of cut staining designed for seismic zones are like buildings of seismic zones. The difference is that in the seismic zones, the buildings that raise the level, in addition to the usual calculation, are also considered to be affected by seismic forces, and, accordingly, constructive measures are established.

The building cut consists of a column (column), a column and a close, forming a single, whole space system, after which they are firmly interconnected. The bar of the elements receives both vertical and horizontal (seismic) forces. A wall is struck between the cuttings. Walls are involved in the work of cut to this or that level. Depending on the type of Wall Construction, the method of attachment with its cut, the calculation schemes of cut buildings will be different.

The first of them is a scheme in the form of an ordinary structure. According to this scheme, the colon, closing discs are attached to each other without a stencil; the walls do not interfere with the deformation of the cut in the process of seismic influences. This is how the cut itself treats the sturgeon and priority of the buildings. When calculating the issues of inertia alarm, special weights of walls and fences are taken into account.<sup>3</sup>

The second scheme also has the appearance of structure. The difference from this awalgis is that in this scheme, diagonally, additional bindings are introduced in order to increase the horizontal of the Ram. Some of the horizontal forces are bound by collisions from the columns. The migrations of the connected will be smaller than the previous one.

The third scheme includes ramps with a diffraction. Sometimes, in order to increase the overall staining of the staining, between the cuttings, the staining walls are restored, which are tightly closed along the entire contour. In such buildings, the walls (diffraction) work together with the cut during an earthquake. As a result, if the diaphragm of the Sturgeon limits the deformation of the building on the one hand, then on the other hand, it takes on itself a large part of the seismic voltage.

Depending on the strength of the diffrags, the following two hoi sections in the work of cut buildings possible:

1. The building cut carries only vertical loads, receives seismic forces from the walls of the (diaphragms). The seismic strength of such buildings is ensured only by the aperture. Therefore, the diaphragm must be calculated and designed to accept the entire seismic force.

2. The strength of the diaphragm is not enough to take the seismic forces to the full. Bunda receives its seismic forces until the diaphragm is damaged. After that, the cut begins to work. Damaged diaphragm absorbs a part of the energy transmitted to the upper part of the building itself on the vibrating floor. The rest of the energy of the earthquake is given to the cut. Bikr sends the dynamic characteristics of the building to change the workmanship of the diaphragm. In this case, it is necessary to count the cuts as structure.

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