

Features of Urban Planning Design of the Largest Cities Located in Areas with High Seismic (on the example of Almaty city, Republic of Kazakhstan)

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Abstract : Strong earthquakes are dangerous natural phenomena that lead to the destruction of entire cities and the death of a large number of people. The recent strong earthquakes in Turkey and in a number of other states have shown that as a result of them, there are significant human casualties and huge destruction. The city of Almaty is located in the foothill basin of the Trans-Ili Alatau of the Tien Shan Mountain system, in a zone with 9-10-point seismicity. Almaty (formerly Verniy) was founded in 1856 and, since that period, has experienced two catastrophic earthquakes - in 1887 and 1911, which led almost to the complete destruction of the city. Since that time, according to seismologists, the city has been annually exposed to small seismic impacts of 2-3 points. This forced the subsequent search for ways to protect buildings and the public through the use of earthquake-resistant structures and materials, limiting the number of stories of buildings and increasing gaps between them, which was carried out quite consistently and since 1957. However, at present, it is necessary to state a number of violations, primarily of the urban development plan - the placement of high-density multi-stories commercial housing in the urban environment, bypassing the existing regulations and standards in the city. Their appearance contributes to a greater concentration of residents transport in a limited area, which can lead to harmful consequences during powerful earthquakes. The experience of eliminating the consequences of catastrophic earthquakes shows that an important factor in reducing human losses is timely technical and medical assistance to victims of earthquakes, the elimination of blockages, provision of temporary housing and evacuation of the population, especially in winter. In cities located in areas with high seismicity, it is necessary to ensure strict compliance with the requirements of urban development regulations, taking into account the entire complex of planning and organizational measures to minimize the destruction of buildings and human casualties.

Keywords : high seismic zones, urban planning regulations, special standards for planning, minimizing the human casualties

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