

SEISMIC TERRITORIES AND IN THE TERRITORIES UNDER CONSTRUCTION TO BUILDINGS AND STRUCTURES WEARABLE REQUIREMENTS

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Abstract

This in the article earthquake during building and to buildings seismic impact, soil movement, seismic vibration intensity, plot soil particles three arrow along in space movement, structure in the elements elasticity limit, strength from the border big was voltages, structures constructions deformation, vibrations appearances, structures injury and violations, private vibrations frequency (or vibration period), vibration uniforms building or building features, earthquake real building during vibration movement of energy dissipation process, building and buildings earthquake force (seismic forces) durable as construction, earthquake-resistant building, structures design, earthquake-resistant structures, reinforced concrete with frame buildings construction, metal structures, exterior walls for light suspension panels , seismic in the regions under construction building, structures design in the process them additional accordingly seismic forces to the effect calculation.

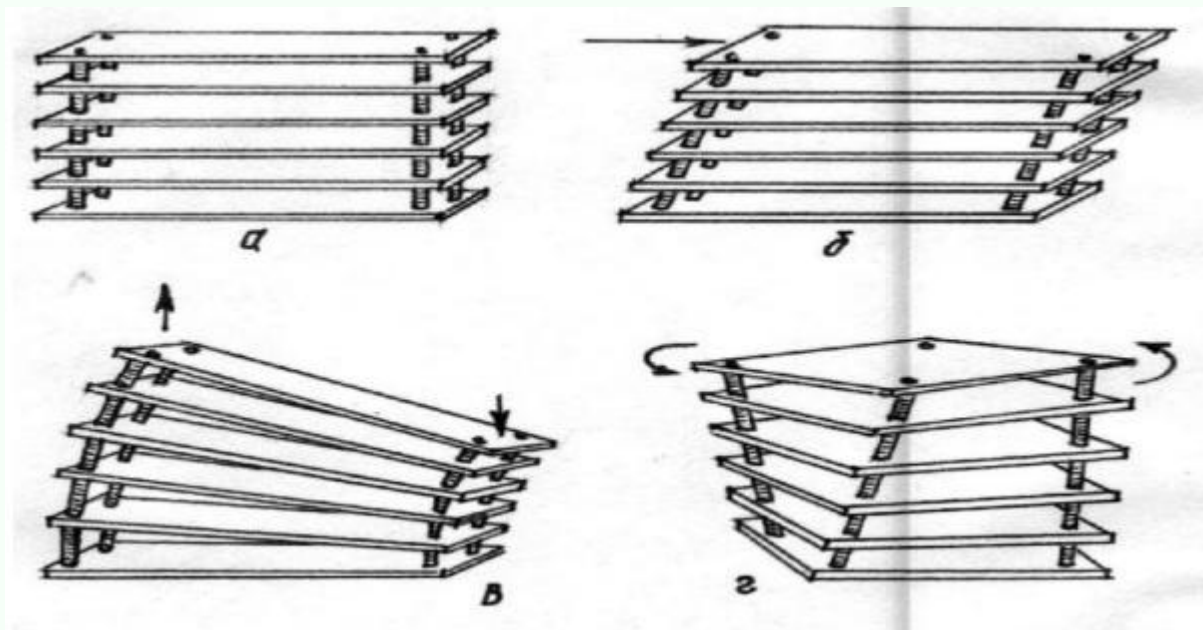
Keywords: Earthquake, seismology, earthquake-prone areas, seismic zones, deformations.

Introduction

It is known that an earthquake ground movement during very short term continue to be oscillatory motion, complex to the character has become no one mathematician expression through complete inexpressibility with characterized by. Earthquake during building and to buildings seismic impact soil through transmitted, their seismic tense status determinant factor soil is a movement. From this visible The building is standing . and of buildings earthquake during their situation, vibration movement physicist character, construction and other of elements such complicated in process seismic to the forces resistance show process extreme complicated and today's on the day full unclear Earthquake during building and in buildings to be seismic impact row features: building or building basis soil seismic vibration to the movement building or of the structure vibration movement and basis soil building or of the structure mutual to the effect related will be. Seismic vibration intensity source energy, seismic waves spreading environment structure and building or building located plot soil to the conditions related It is known that the plot soil particles three arrow along movement in space does. That record to do It is necessary that the soil spatial movement vector all in the arrows projections dimensions each other close will be. Building or building wall, column, railing and other from constructions organization found being a unique entity because of the y vibration in motion two in uniform vibrations happened to think that it will be possible: - first in uniform vibrations, this building or of the structure one in its entirety vibration; - the second, the structure or building system organization did construction and elements vibrations. Above as mentioned, vertical on the plains located two mutual perpendicular to the bullet relatively building or in the building torque wrench will be. Building or of buildings three arrow along (length, width) and height) dimensions each other close that was because of the buildings vibration in motion spatial movement occurs It is considered that there will be an earthquake. during to the surface coming seismic from the impact in the building elasticity border, sometimes strength from the border big was voltages happened It will be. That's why for (construction) in buildings injury and disorders happened There will be an earthquake. during building and to buildings seismic impact intensity basis soil seismic vibrations to the characteristics and building (building) dynamic properties to the ratio related It will be. outside of the building

(structure) basis soil with mutual impact character that is his/her to the base how It is also important that it is supported.

If building or of buildings seismic vibrations extreme complicated in appearance happened although, their vibrations following in the picture four similar vibration in the form of imagination to do possible



Earthquake under the influence in buildings happened to be deformations. a - calm position: b - displacement: c - bending: d - rotation. In this case main indicators-private vibrations frequency (or vibration period), extinction decrement and vibration uniforms building or building to the characteristics related Usually low - rise buildings private vibration period around 0.25 sec (frequency 4 Gs), many multi-storey buildings 0.5-0.8 sec will be. Basis of the soil earthquake during vibration movement two to phase separation possible: - first phase short periodic from vibrations consists of is, this background sharp tattoos with manifestation will be; - second in phase earthquake the effect (long) is large periodic from vibrations consists of will be (clear) separated standing vibrations). First phase vibrations hard and fragile elements for danger gives birth to. In particular how much enough not been to strength has was wall and in the corners cracks appearance to be possible. The vibration second in phase first in phase damaged of constructions instead of shift happened This is wall and of the oraopmas to the violation cause will be and x occasion. This record to do It must

be an earthquake. real building during vibration movement of energy dissipation process laboratory under the circumstances testable construction of materials according to complicated will be and this of the process following to oneself typical sides showing transition must:

1. Building various constructive to the feature has material and from elements organization found mechanic from the system consists of is a laboratory under the circumstances testable monolithic from examples his/her status sharp difference does.

2. In the building construction material internal friction through happened to be energy absorption (dissipation) is often shift deformation because of happened if, laboratory under the circumstances tested under the circumstances in the bend stretching compression deformation because of happened will be

3. Energy absorption (dissipation) buildings constructions virgin not been in connections (fences, railings, stairs) and this etc.) occurred will be. Such connections and laboratory under the circumstances testable in constructions It won't be possible.

4. Earthquake during building with soil together vibration in motion participation enough that's it, he's in turn energy distributor to the source Because it is with the ground suddenly synchronous vibration in motion It won't be. Such situation and with the ground of the building joint movement based on to the surface coming inelastic resistance own in turn of energy to dissipation cause will be .[5]

Seismometer construction, earthquake-resistant construction - seismic (earthquake) botbot happened become in the areas where foundation attainable building and buildings earthquake force (seismic forces) durable as build. Earth of the kurra which in the territory how power with earthquake happened to be possibility seismic zoning on the maps by designating placed. Uzbekistan The area is also seismic. regions to the sentence enters, its seismic for zoning maps This is a On the maps, Tashkent and Andijan are assigned 9 points, Fergana, Namangan and Samarkand 8 points, and Bukhara 7 points. included and etc. Building and buildings that one in the area happened to be possible was earthquake to the power durable as to be designed and construction Building and of buildings earthquake resistance provision for special anti-seismic measures is used (this as a result building and of buildings the cost increases by 3-10%.

Earthquake-resistant building , structures and metropolitan in the project their in the history appearance possible as much as possible simple to be necessary,

because edit circle, square or correct rectangle shaped buildings complicated shaped building and to buildings relatively more earthquake-resistant If architecture or use requirements according to, complicated shaped building and buildings build necessary if, then them anti-seismic stitches by means of simple shaped into parts is separated .

Brick walled in buildings all the loaders structures (longitudinal and transverse walls, coverings) each other with solid connected just in case building whole spatial construction as earthquake to their forces resistance shows.

If this connection there is if not or weak if, longitudinal walls transverse from the walls separated departure and some in cases collapsed fall possible. Wall When it falls, the scars are completely gone. or partially pressing remains. Antiseismic measures not used in buildings such events many occurs. Buildings from the earthquake unharmed save stay for special measures For example, the building perimeter along anti-seismic belts processed, closures each other and on the walls thorough connected, wall to the corners and intersection to their lands fittings will be placed and etc. Brick the walls in recovery wall between vertical in the direction reinforced concrete elements - cores complex construction harvest It is made of bricks . walls under to be placed waterproofing layer cement without mixing is processed; this for the purpose willow use recommendation not available.

Large paneled buildings high at the level mechanization opportunity big since it was construction this style seismic and nonseismic in the regions wide is used. Building weight lightness (of brick) walled to buildings 1.2-2 times more than light), wall of the material strength , load -bearing of constructions simplicity and the load (force) of whole to the surface one in moderation spread because of seismic in zones so buildings many is being built.

Seismic in the regions applicable external wall of panels 1 and 3 - layer construction to be possible. Single layer panels expanded clay concrete or light concrete other of the types Three folded 2 edges of the panels layer from reinforced concrete worked, middle layer of mineral wool, foam concrete like hot and cold impermeable from materials is prepared. Cover panels room in size made, four edge with to the wall relies on.

History from tests past earthquake-prone from constructions one meticulous buildings . Such buildings Medium In Asia very ancient from the times since looking arrived . Tests various wood from materials worked . Now many multi-

storey buildings wood from the eyes not steel or reinforced concrete from the carcass under construction. New of materials mechanic properties wood from materials much difference from what he did of these workable of the senses constructive The schemes are also different. will be. Building watchful column, beam and without closing organization finds; they mutually solid once assembled, whole spatial the system harvest The system does. elements can withstand both vertical and horizontal (seismic) forces acceptance does . Tests between brick wall is hit.

Reinforced concrete in Uzbekistan too with frame buildings build wide widespread . Seismic in the regions metal from carcasses It is also good to use It is economically efficient . Metal constructions solid and light since it was earthquake-prone buildings foundation in the process of very hand Beijing Metal of constructions rust , high lifting loads on trailers feature loss such as There are also disadvantages . Earthquake during fire output possible, therefore for metal parts to the grass resistant materials with For example, Amir Temur of Tashkent 1st and 2nd floors of the 17-story "Uzbekistan" hotel on the avenue closures monolithic, 3-17 floors collection from reinforced concrete processed. Internal walls collection reinforced concrete, exterior walls and expanded clay concrete from panels built.

foreign construction external walls for light suspension panels wide used. Light panels less multi-storey in buildings, too multi-storey skyscraper very good in buildings wide widespread. Foreign in countries suspension panels, usually, many folded as The load -bearing capacity of the panel is part aluminum or steel carcass to be, to be outside and internal by thin lists with covered. In the middle plastic, glass or mineral wool insulation fold is placed. Such panels because it is lightweight (50 kg/m²) big large (2-3 floors) at altitude) processed. Light panels repair in the process them easily replacement The panel is very fast assembly is made, because the panel is attached to the frame bolts using attached.

Seismic in the regions under construction building , structures and metropolitan design in the process they usual static from the forces besides , additional accordingly seismic forces is also considered to be under the influence of the former Soviet Union. Until 1996, Uzbekistan all-Union on a scale in practice SN and P II-7-81 (construction) standards and rules) using was born. Since March 1, 1996 in the republic new construction standards and rules current was destroyed by the earthquake in 1997 strength identification for seismic scale - Uzbekistan

Republic standard (Uz RST 836-97) adopted Seismicist for construction circle scientific research The works of KS Zavriyev (Tbilisi), MT Orozboyev, TR Rashidov (Tashkent), AG Nazarov (Yerevan), Ye. F. Savarensky, SV Polyakov and IL Korchinsky (Moscow) and other scientists big contribution added by. In Uzbekistan Seismometer construction MT Orozboyev basis Seismicist construction in the field Uzbekistan Sciences academy Mechanics and of buildings seismic strength Institute , Seismology institute and some stock ownership in their societies scientific research works take will be taken.[6]

Hu losa as this to say maybe buildings seismic to the forces against stand for suitable constructive solutions with build necessary. For example, elastic and plasticity to the characteristics has from materials use, local materials with built buildings reinforcement for innovative technologies current to be - this is also local positive for the economy impact shows. From this outside buildings in design seismic effects into account received without them shape and dimensions optimization, example low- rise in general buildings for wide basics or seismic insulators application possible. Of course of the building located soil features deep study. This soil seismic to vibrations how impact to do to determine help gives. Earthquakes during of buildings monitoring the condition for sensors and automated systems current to grow and in process injuries early determination and necessary measures to see opportunity gives.

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Seismic construction

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