

**CONSTRUCTION OF FOUNDATIONS IN GRUNTS WITH VARIABLE STRUCTURES**

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Abstract

Abstract. The relevance of the topic, the significance of geological exploration work, the significance of the construction of pile foundations in such conditions, the features of foamy and salty grunts, empty grunts saturated with water, tasks in the construction of foundations in such complex conditions.

Keywords: grunt, foundation, geology, pile foundations, foaming grunts, saltwater grunts.

Introduction

Implementation of targeted programs for the construction of affordable housing, development and modernization of road transport, engineering and communications and social infrastructure, and a strategy for the invasion development of the Republic of Uzbekistan in 2022-2026, and the future improvement of the welfare of our people, shown in the program of action strategy in 5 areas of development of the Republic of Uzbekistan, on the basis of the restructuring of production and the acceleration of scientific and technical Re-production, the effect of effective economic reengineering and growth lifting is achieved. From this, the main part of the investment should be directed to the reconstruction of production and technical reconstruction [1-4]. In the study of this issue, the scientific work of a number of researchers was studied [5-20].

Reconstruction and modernization are neither aimed only at industrial facilities, great work is being done on the reconstruction and modernization of old infrastructure buildings in the same train with the increase in the construction of new buildings in order to provide all families with residential and infrastructure facilities as defined in the strategy of socio-economic development of the Republic. As a result of the reconstruction of these residential and infrastructure buildings, located mainly in urban centers, an increase in the welfare of our people is achieved.

Construction problems in cast soils and their properties.

The most labor-intensive part of the work on the construction of the foundation in the construction. It is 8-10% of the total cost of all construction and installation work. Labor consumption reaches 15-20% in most cases. Most of the cost will be in the construction of objects in complex grunted conditions. Complex grunt conditions include, in the construction of civil and industrial structures, floors or layers with grunts with “noustvor” properties in the composition, spaces filled with water, gas and ice, floors with grooves. Also, construction in



complex grunted conditions includes construction in underground processing and earthquake areas. In the construction of civil and industrial facilities on such sites, there is a lot of experience in our Republic. But in such conditions, the sinking of buildings and structures built and the fact that they are being damaged are observed, which means that additional costs and construction are becoming more expensive. Now, when building floors and foundations, expensive structural solutions are being adopted that do not justify themselves in many ways, which leads to a huge amount of concrete and metal, as well as labor costs. From the foregoing, it follows that at present, the main direction in the construction of foundations in complex grunted conditions is to clarify geological exploration and methods of laying foundations, and to introduce new technological methods for the construction of artificial floors, and to build economical foundations. The experience of widespread use of pile foundations for residential and industrial buildings in grunts with complex conditions has shown that the use of piles in many cases leads to errors. Pile foundations are an expensive construction that requires a lot of Labor consumption, a large fuel-energy consumption for preparation, as well as metal and cement consumption, which is the least expensive in large quantities. Despite the high wear rate of pile foundations, a large number of structures restored in piles have suffered large unacceptable subsidence and had to provide additional funds for restoration and repair work. Pile foundations, which were enslaved under complex grunted conditions, showed that if the pile was made of loose grunts (Super-precipitated Leslie, peat, water-saturated loose gills, etc.) if it passes completely and penetrates at least 1.5 m into the solid grunts below it (0.5 m for rock grunts), such pile foundations will be reliable, and no subsidence will not be observed on the foundations. However, if the stakes do not reach the solid grunts, remaining a suspension in a layer of loose grunts, it will cause such foundations to deform and spoil the structures, regardless of the length of the pile. For example, an industrial structure in Riga, built on 18-meter reinforced concrete piles (II thickness 26-30 m), sank up to 80 cm. An industrial structure in Volgodonsk, built on 22 - meter cast-iron concrete piles, with a layer of loose grunts 30-32 m in places 30 cm more drowned, and the conditions of use of the building were violated. Achieving a sharp dream of building value in complex grunted conditions, compensation of grunts with heavy shibbalowers, application of grunt Sandy, Oxy piles, application of timely loaded steep sandy and polymer drains, compensation Sandy pillows and so on. there may be a wide application of methods. Cement and metal are not required for the construction of such artificial floors, fuel and energy consumption is sharply reduced. In the construction of civil and industrial structures on highly sedimentary Lesotho grunts, the main attention should be paid to the direction of complete loss of the properties of extreme sedimentation of all Lesotho grunts layers on the ground of the structure. The most rational method when the layer of extremely precipitated grunts is not very large (up to 7 m) is the use of shibbalovists, the mass of which is 7-25 t heavy, thrown from a height of 7-14 m. The large territory of the "MDX" States (14%) was occupied by loose clay grunts saturated with water (il, water-saturated less, taped gills and other Birch were made of flowing plastic and flowing). When solid low-rise grunts are located to a depth of 12 m, pile foundations are often built. In other cases, sand pads of 0.5-8.5 m are applied to the thickness. The use of civil and industrial structures built on large sand pillows suggests that the deformation of structures is not observed in them. If the clay



grunts saturated with empty water are located up to a depth of 16 m. sand piles can be applied, the technology of preparation of which is the same as for cast piles, with the lower end opening when staking an inventory metal pipe. Construction experience has shown (Riga, Klaipeda and b.sh.), in buildings on sand piles, there will not be a lot of subsidence and will be used well. The increased humidity of the grunts leads to the fact that too many structures are damaged, which requires a large expenditure for restoration. The expansion of the construction cost carried out in the areas where the multilayer grunts were distributed has led to the need to study the process of multiplying the grunts on the floor of the structures and develop construction methods on such grunts.

Conclusion

As a result of the study, the properties of grinding grunts were studied when it was moistened with a mixture ("chemical foaming"). It turned out that the grunts are not very deformable when moistened with water, and when moistened with a mixture, they can increase in level, which leads to a violation of the structure. Saltwater grunts are common in the southern regions of the MDX and are no less used as the ground of buildings and structures. Over the past 15 years, such methods have been developed that make it possible to predict and determine in advance the development of the suffocation deposition of grunts in the alkalization of salts and the change in the properties of the grunts to be independent. Based on the research carried out, methods were developed for the treatment of saltwater grunt floors. The degree of salinity and the filtration flow system under the foundation, which is given in grunts, are taken into account. In the new GOST 25100-82, the permissible limit amount of salts in grunts used as natural ground was increased, which leads to a slight decrease in cocktail consumption and cost when using local brine and plastered grunts.

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