JEDIC Journal of Ethics and Diversity in International Communication

| e-ISSN: xxxx-xxxx | www.openaccessjournals.eu | Volume: 1 Issue: 1

THE ROLE OF GEODESY IN THE CONSTRUCTION OF BUILDINGS AND STRUCTURES

Khudoiberdiyev Feruz Shamshodovich[1], K. Muhammadov[2], S. Bobojonov[2]

[1]Acting Associate Professor of Land Management and Land Use,
[2]2nd Year Students of the Direction "Land Cadastre and Land Use"Annotation
[1,2]Bukhara branch TIQXMMI, Uzbekistan

Abstract: In this article, we will talk about the advantages of engineering-Geodetic measurements and the use of structures in the general scheme of construction work, the requirements for it.

Key words: Reconstruction, contracting, capital, exploration, Geodesy, Theodolite, construction.

Construction is the process of preparing a building, as well as the place where such a process is going. Construction is a complex process, in which several tasks are performed.

Construction this:

- one of the major areas of material production;
- construction and reconstruction of buildings and structures of various purposes;
- the building under construction together with the territory used for carrying out the work (construction);
- creative process in a broad sense.

Finished and prepared for use topshirish are products of construction of manufacturing enterprises, residences, public buildings, facilities and other facilities. In construction, the production cycle is relatively long (from several months to several years), the production process is carried out in an open way in different weather conditions. Construction organizations and special organizations for contracting and economic construction and assembly works, as well as capital repairs of buildings and structures; design, design and search organizations; Shirish top to use and carries out reconnaissance organizations.

According to the characteristics of the object of recovery, it is divided into the following types of construction:

1. industry
2. transport
3. Village
4. Water Resources
5. housing
6. municipality
7. socio-cultural

In ancient times, Geodesy was used in the creation of plans and maps for land surveying and Economic Affairs. The mile. the hunt. In the 7th century, in Babylon and Assyria, they made geographic maps on clay tablets. The mile. the hunt. It was said that in 6-4-th centuries the Earth was a sphere. The mile. the hunt. In the 3-th century Egypt was engaged in the division and measurement of fertile lands. Later, Geodetic measurements were carried out when measuring places and determining the dimensions of the Earth, compiling tarx, construction of engineering structures.

Learns methods of providing topographic and geodetic solutions to various practical and scientific issues arising from construction, mountain exploration and geodetic observation of buildings and structures in applied Geodesy. In a short sense, applied Geodesy is engaged in topographic-Geodetic search, the construction and relocation of bin ova structures, the provision of Geodetic measurements in the process of their construction, the determination of deformation of buildings and structures, etc. A variety of equipment is used in the mathematical processing of measurement methods and results, as well as in the restoration and planning of Geodetic base networks.

Currently, modern computing techniques, laser devices, electronic devices and GRS systems are widely used to perform engineering and geodetic work. The organizational parts of Applied Geodesy are as follows:

1) topographic-Geodetic search works of fields and routes;

2) engineering and geodetic design of buildings and structures;

3) Geodetic planning works;

4) installation and inspection of construction structures and technological devices by geodetic method;

5) to observe and determine the deformation of building and Ulama foundations.

Each of these parts is associated with a certain stage of the construction process, the issue to be solved, the method of measurement and accuracy differ from each other.

In the general scheme of construction work, engineering-Geodetic measurements and structures occupy a special place. They begin during engineering and geodetic studies before the beginning of construction, and it is an integral part of construction and assembly work. It will also continue during the period of monitoring the deformation of buildings and structures along with the control of the quality of construction products.

Therefore, the issues of the accuracy of the performance of Geodetic works are of urgent importance and determine the quality and reliability of the buildings and structures on which they are built. In assessing the reliability and correctness of measurements, the main thing is to choose the perfect methodology for the appropriate instruments of Geodetic work, proceeding from the established technological requirements of the project. As a result of scientific and technical progress, along with an increase in the technical level of construction, methods of performing engineering-Geodetic work and the production of devices were also improved. If the development of Geodetic instrumentation until the 60-ies of the XX century, followed the path of improvement of traditional technology, then the development of microelectronics in the last 30-40-th year has launched a new era of tools and methods of Geodetic work.

Today, the two main conceptions of the development of Geodetic systems determine the emergence of new instruments and systems, and the fierce competition in the international market determines the constant improvement of electron total stations, forcing manufacturers to simplify the processes of measurement to find increasingly effective solutions, and the use of the most convenient user interfaces, the creation of holistic systems combining the

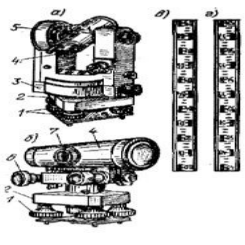
Work related to the planning of the arrows of the building on the projected site and the determination of the project situation of the structures to be installed is called Geodetic work. These works are carried out by means of rollers, optical projection devices theodolite and nivelirs.

Theodolite (picture 1, a). A geodetic instrument designed to measure the horizontal and vertical angles on the ground as well as distances using a spinning dalnomer is called a theodolite. Theodolite is fixed to the shtiv, the vertical axis is brought to an upright position. Bunda occupies a lying position of its horizontal circle (limbi). The viewing tube of theodolite is directed to the observation point. With the help of the directional angle calculator it is possible to calculate on a horizontal circle, and on a slope-on a vertical circle.

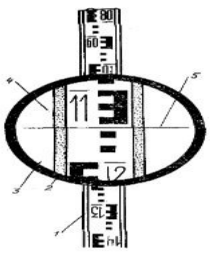
Nivelir (Figure 1, b) is an optical instrument, used for the purpose of determining the design marks (heights)in place. This instrument is used in combination with nivel Rey relics.

The determination of the low-height, relative height of certain points of the building using instruments and calculated is called nivelirlash. The height of the points expressed in meters relative to the level of the Baltic Sea is called The Absolut mark. The height expressed in millimeters relative to the finished floor level of the first floor of the building points is ground as conditional design marks.

Relics of Nivelirlash. One or two sides are divided into centimeters, and the wooden board on which the decimeter value is written is denoted by the name nivelirlash reykas. The viewing tube of the nivelir shows the image in reverse. In order to correctly read the image within the sight of the pipe, the figures in the relics are depicted in reverse order.



1-rasm. Geodeziya asboblari: a — teodolit; b — nivelir; v — qora bo'yoqda santimetrlarga bo'lingan nivelir lineykasi; g — qizil bo'yoqda santimetrlarga bo'lingan nivelir lineykasi (lineykaning orqa tomoni); g — rostlash (ko'taruvchi) vintlari; g — taglik; 3 — gorizontal doira; 4 — okulyarli qarash trubasi; 5 — vertikal doira; 6 — asbobning gorizontal tekislikda burilishini sozlaydigan vintlar; 7 — fokusni rostlaydigan halqa



2-rasm. Nivelir qarash trubasining okulyarida reykaning ko'rinishi (sanoq 1155): 1 — nivelir reykasi; 2 — nivelir okulyari; 3 — qarash trubasining nazorat doirasi; 4 — nivelir okulyarida reykaning ko'rinishi; a — okulyar to'rining o'rta gorizontal chizig'i

The sections in the Reykjavik are equal to 100 mm, and each five sections (so that the calculation is convenient) are combined into gruppes in the form of the letter Ye. The visual light of the nivelir is in the horizontal direction, and the numbers on the Reykjavik are taken in the same direction. When counting on the Reyka, it is understood to determine the height from the plane to the level of the central vizir axis of the to nivelir, which is mounted on the reyka.

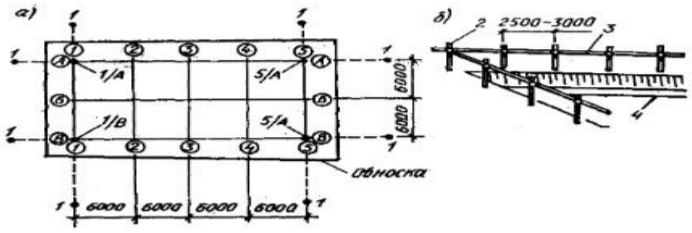
The count is taken according to the central horizontal line of the grid (Figure 2). Within the viewing frame of the tube, the numbers increase from top to bottom. First the decimeters are then counted in centimeters and decimal shares of the divisions (mm), (up to the middle line of the net). Plan the building and mark the arrows on the plan. The work on the construction of the Obyekt begins with the identification of the main arrows of the building and the planning of the building. When performing these works, geodesic mesh and height repersion1 is used.

Two lines that intersect each other at a right angle are called head arrows and determine the position of the building on the floor. Those arrows are marked when building buildings whose appearance in the plan is complicated. Most often, the main Arrows are marked on the contour of the building and passing through the places where the deformation sutures fall. Mark the main arrows of the building (Figure 3, a). It involves the work of consistently marking the lines and corners in the places where the building falls.

Initially, the V–V axis is drawn (on the long side of the building); for this, 1/V and 5/V points are removed from the base Geodetic mesh punches. 1/V–5 / V Line is measured; the length of this line should be equal to the actual length of the building. On the ends of the V–V arrow, steel pegs are stumbled.

On 1 / V point, theodolite is fixed, the angle of 900 is measured and the condition of 1-1 axis is determined. From 1/V point the project line is drawn and the relay of 1/A point is determined. The directions of the main Arrows are indicated by permanent or temporary Geodetic signs; and until the building is ready, these signs do not break. For the purpose of determining the location of the arrows, paints are used. To do this, on the paint, which does not fly to the constructions of permanent or temporary buildings, Mark lines are drawn.

The work on drawing up the plan of the building and setting the main Arrows is completed by blocking (construction of obnoska) the perimeter of the building with a shovel (Figure 3). Obnoska consists of piles embedded in the Earth, pillars and boards that cross them. The upper edge of the boards is fixed according to the nivelir. Obnoska is usually installed parallel to the contour of the building. It can also be an inventar obnoska, which consists of metal pipes.



3-rasm. Bino o'qlarini rejalash va to'sish (obnoska) sxemalari:

a – reja o'qlarni begilash; b – to'sish detallari; 1 – stvor nuqtalar;
2 – ustunchalar; 3 – gorizontal taxtalar; 4 – reja o'qlari o'rnini
ko'rsatuvchi sim; 1/A 1/V; 5/A 5/V – binoning bo'ylama va ko'ndalang o'qlarining kesishish nuqtalari

Moving the intermediate arrows of the building from the drawing to the place and marking their location is carried out after the main Arrows are marked with lines on the obnoska. Once the location of the main Arrows is determined, the location of the intermediate arrows of the building is determined using a roulette and marked with a hyphen.

List of used literature

[1] Perfilov V.F. Geodesy / V.F. Perfilov, R.N. Skogoreva, N.V. Usova. - ed. 2, rev. and add. - M.: High. shk., 2006 year.

[2] Gauf M. Electronic theodolites and tachometers / Per. 2-from the Czech Republic. revised and add. distortion. F.G. Kochetova. - M.: Nedra, 1978 year.

[3] NTK-2008, Department of" City construction and economy", small department of" foundations, Engineering Geology and geodesy", Barnaul: AltSTU, 2008.

