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METHODICAL RECOMMENDATIONS FOR THE CREATION OF A MODERN DESIGN OF UNDERGROUND AND GROUND TRANSPORT

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ABSTRACT

This article provides methodological recommendations for the creation of a modern design of underpasses and overpasses. During the implementation of this procedure, all designed and existing communications located in the construction zone must be taken into account, as it will be very unpleasant if workers accidentally break the gas pipeline, water supply or fiber optic cable during installation. Before you start laying public roads, junctions, or any city street, you must first obtain permission to carry out such work, and for this it is necessary to study and design highways.

KEYWORDS: *Roads, Structures, Gravel, Asphalt Project, Building, Relief.*

INTRODUCTION

The design of underpasses and overpasses is one of the most important tasks in the modern world, as the installed roads are arteries through which cars, trucks and public transport travel. The modern transport system is a complex organism in which all its elements are interconnected and directly related to each other. Currently, the design of the highway is mainly determined by the existing connections between settlements, recreation areas, industrial enterprises and other public centers.

Life in the modern world cannot be imagined without an organized and well-functioning mechanism that ensures the normal transportation of goods or population. Today, skilled road design is critical because tracks are currently not fully adapted to ever-increasing traffic flows and high speeds.

Carry out this procedure according to the design speed of transport ensure safe, comfortable, organized and maximum comfortable movement of vehicles. Also, the qualified design of the road allows you to fully comply with the same traffic conditions, the principles of visual orientation of drivers, convenient and extremely safe location of various intersections and junctions. That is why it is so important.

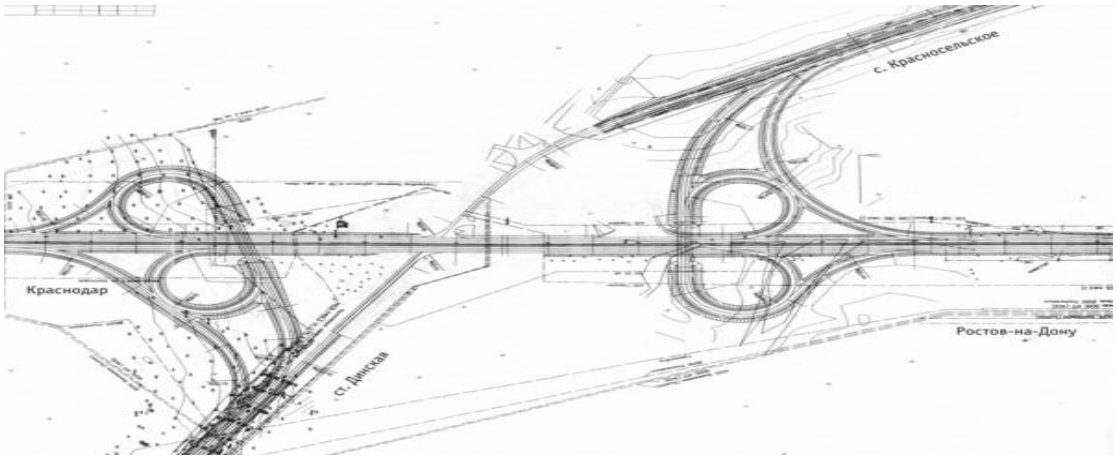

Figure 1: Proposed road map

Many private area owners wonder why it is necessary to study and design highways, as it is enough to just fill the route and lay asphalt on it. But if one has not encountered such a thing, at least begin a superficial acquaintance with the complete list of works to be encountered, as well as the costs of their implementation and the possible consequences. 'rish is better

Before you start laying public roads, junctions, or any city street, you must first obtain permission to carry out such work, and for this it is necessary to study and design highways. The unauthorized conduct of all work will eventually lead to the summoning of traffic police representatives, who are primarily concerned write the command, and if in the near future all comments are not completely eliminated, the junction or road will be completely destroyed and the operation of the object will be banned. …

In this regard, everything will have to be restored to its original state, which would be a waste of a huge amount of money if the road led to some kind of industrial site, gas station, cafe or cottage, not to mention the termination of their activities as well.

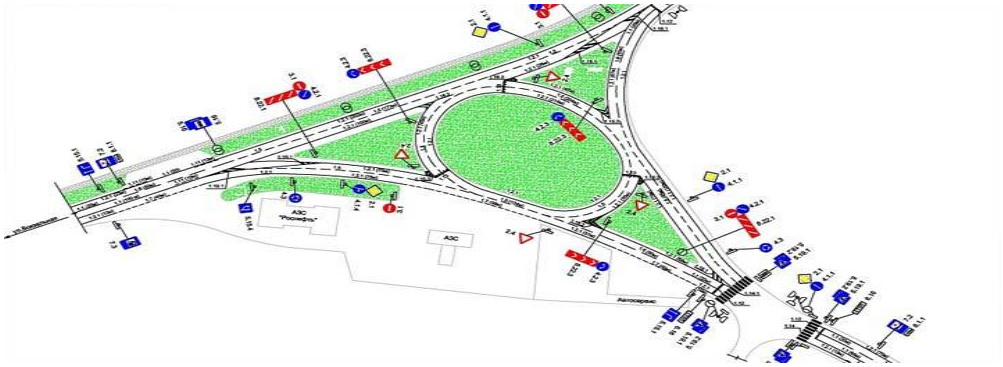

Figure 2: Proposed road map

According to the SNiP, not everyone understands that designing highways is not just about laying gravel, asphalt and installing road signs. During the implementation of this procedure, all designed and existing communications located in the construction zone must be taken into account, as it will be very unpleasant if workers accidentally break the gas pipeline, water supply or fiber optic cable during installation. After all, the customer is engaged in repairing and compensating the damage caused to the owners of the connection, and the cost of these works is very high.

Figure 3: Proposed 2-story road project

Therefore, the standards set out in the SNiP must be fully complied with. Only professional professionals should trust the design of roads, because there are many ideas that even professional builders do not take into account. Qualified engineers take all necessary measures for the long-term and safe operation of the road, calculate the structure of the floor and the load-bearing capacity for any load, as well as provide drainage systems to prevent erosion of the subsoil and take into account many other nuances.

First, you need to decide what types of roads are available:

A highway is a road on which cars travel along a continuous route and access to it is provided every five kilometers.

Speed - differs from the first round in that it has a simplified entry level of three kilometers.

Normal use is all other types of highways that are not included in the definition of the previous two.

Depending on the type of road chosen, the planning features will also vary significantly. The design process takes into account various features of the terrain, bed type of road, meteorological

conditions, adjacent roads, estimated service life, traffic flow intensity, as well as power characteristics.

The first thing in the planning process is to clearly define the route. Under no circumstances should the highway pass through agricultural zones, urban centers, as well as unique natural landscapes and all types of industrial complexes.

Figure 4: Proposed road project

In most cases, engineers initially allow this when planning learn in advance the area to be placed and all possible on the map determine directions. After that, a detailed analysis with identification of all the advantages and disadvantages of each of the presented options carried out. A specific route is then selected and a detailed analysis of it is performed before the design of the highways is carried out through the TCH. In addition, work is underway to create project drawings, but at the same time the owners of lands and various organizations, where the routes will be carried out across their territories, have the right to express their suggestions and comments. Basically, an independent project expertise is organized in the planning process, the results of which are already subject to various changes.

In the final stage, once the project is approved, many working drawings are created. In addition to the direct route, the drawings provide detailed information on road crossings, exits and entrances, as well as crossings, crossings, bridges and other structures. It is also mandatory to determine what special equipment will be used in the process of laying the road and laying clothes.

Design of public highways

Figure 5: Proposed 2-story road project

Urban and suburban highways are constantly under the influence of constant and temporary mechanical stress, as well as many climatic factors. This is especially noticeable in our country, where the number of "freeze-thaw" cycles per year can reach ten.

There are also avalanches, precipitation, groundwater and a number of others factors have a devastating effect on the bottom of the road. The main reason why designing this road is a very difficult job is that only experienced and reasonably qualified engineers can be trusted.

In order to develop a project, its implementation will allow to solve the problem of transport in a particular region, the specialist must have certain knowledge. Only in this case it is possible to guarantee the required safety and ease of operation of the route for passengers and cargo.

In designing the road, the engineer always takes into account that it must not only connect federal and administrative points to each other, but also meet safety standards for drivers, passengers and pedestrians. To do this, it is necessary to take into account certain standards for the design of highways that provide the required level of convenience and safety.

If errors are made in the calculation of future use of roads during design, this will lead to problems. If they are not remedied as soon as possible with quality repairs, the road will quickly deteriorate.

Therefore, when designing the road, it is necessary to take into account not only the current loads, but also a long-term plan for twenty years. If the plan is made without considering the prospect, it is considered to be of poor quality.

LITERATURE

1. HM Ubaydullayev and others. "Typological bases of design of residential and public buildings" .- T .: "Heir-publishing house". 2009

2. M.Xalimov. "Drawing" .- T .: "Rhizography of TDPU". 2013

3. Xamraev O, Magdiev. Sh, Qodirov. T Basics of car service. Textbook Tashkent: Uzbekistan, 2008. 247 b.

4. Xo`jaev B.A. Basics of cargo and passenger transportation in cars. Textbook T., "Uzbekistan". 2002