

THE USE OF GABIONS IN THE LANDSCAPE DESIGN OF HIGHWAYS AND CITY STREETS

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<i>A B S T R A C T</i>	<i>KEYWORDS</i>
<p>One of the most important problems of modern road engineering is to improve people's environment and create healthy and comfortable living conditions in cities with high demands on architecture in general and landscape architecture in particular. In solving this problem, green construction, which covers many issues of architectural, planning, engineering and biological nature, plays an important role.</p> <p>In our country, gabions are widely used for artistic decoration of highways, road stabilization and erosion control of slopes, structural purposes in highway architecture.</p>	<p>Highways, city streets, landscape design, gabions, artistic decoration, road stabilization, slopes, erosion control, constructive purposes in architecture.</p>

Introduction

The processes of modernization of the country are visible at every step and are bearing their results. The appearance of cities and villages is changing, new settlements, smooth modern roads are being built. Large-scale socio-economic reforms implemented in the republic in recent years and aimed at increasing the economic potential of regions and fundamentally changing the appearance of cities and villages, in turn, require more rapid development of road transport infrastructure.

Main Part

Structurally, gabions can be divided into four types. Each type has its own form and function:

Flat gabions are rarely used for decoration. It is more suitable for strengthening the mountain slope or river bed. They can serve as a support for various large structures.

Boxes are the most common type of gabions. It is often used to create walls, fences, partitions, etc. In the design of parks, they are also used as supports for flowers and trees.

Cylindrical gabions act as pillars or supports. They are used for support, anti-erosion and decorative purposes.

Shaped gabions - gabions of complex shape. They can depict people, animals, abstract figures, etc. They are used for decoration.



Figure 1. A part of a metal fence when making gabions

Materials and tools needed to create a gabion:

- metal fence
- metal handle
- sim
- ombre
- reinforcing parts
- gloves



Figure 2. Use of gabions in strengthening slopes

When creating a gabion, the size of the metal fence is chosen. It depends on the size of the area and the size of the stone to be taken. First, a metal fence is made and a stone is chosen for it. When making a metal fence, the corner parts are welded and brought to the desired shape. Pre-prepared stones are selected.

Table 1 Mesh size and wire thickness when creating gabions

№	The size of the set	The thickness of the wire
1.	5*5	2.2
2.	5*5	2.8
3.	5*5	3.2

During the research work, the limited liability company "OOO BAKAN TEX" located in Yashnabad district of Tashkent city was beautified and gabions were created. Large stones were used for this. 5*5 metal grids were brought to the required border shape and welded. With stones brought from several districts of Kashkadarya region. was filled. In the previous case, the object where water was collected was made into a scenic and safe state by creating a gabion. The situation is being monitored until now.



Figure 3. Development process of "OOO BAKAN TEX".



Figure 4. The finished state of gabions at "OOO BAKAN TEX".

In addition, they participated in the extensive use of gabions in the greening of Sebzor Street, located in the Shaykhontokhur district of Tashkent city. The bottom of the seats was filled with shaped gabion stones. Also, 3.2 wire mesh of 5*5 cm thickness was used as a border, and humus soil was filled in between. Shamshod and virgin juniper were planted for landscaping. 5 candlesticks and 5 virgin fir trees were used for this. In addition, trees were shaped. Observation work is still being carried out.



Figure 5. The process of building a gabion on Sebzor street



6-rasm. Sebzor ko`chasida gabion barpo etish jarayoni



Figure 7. Building a gabion on Sebzor street



Figure 8. Use of gabions on seats

Results and Discussions

Scientific research work began with the review of literature. The works of German, French and Russian scientists were studied. The main attention was paid to the structure of gabions. The advantage of gabions is that they have a very simple structure: stones and a metal mesh. In this case, gabions can be made in various forms. Gabions can be made in ordinary home conditions. Gabions are widely used in landscape design because they are adaptable to any weather conditions. When choosing the size, shape and material of gabions, it is determined depending on the area of the place to be improved. Gabions can be used not only for design, but also for protection against erosion. Gabions not only decorate the suburban area, but also protect riverbeds from erosion, strengthen slopes, and prevent soil erosion.

Conclusion

Having studied the current state of the problem, creating a landscape composition from gabions with a beautiful view, determining the bioecological characteristics of the forms of bushes and flowers growing in them with a scenic feature, determining and scientifically justifying the technology of creating and placing gabions. In the conditions of Uzbekistan, it is possible to determine the optimal

option of creating a composition from gabions in landscape design and recommend it for landscaping. A guide to the correct use of gabions can be developed.

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