

## FEATURES OF PROTECTION OF MOUNTAIN ROADS FROM AVALANCHES AND AVALANCHES.

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**Annotation:** In this article, it is noted that the repair of roads and the commissioning of our roads will soon be in a state of disrepair. suggested the need for teeth. The process of building the pavement before the construction of our roads. At the same time, the fact that we have to process it at the time of construction, leads to an increase in service life and economic efficiency.

**Keywords:** GOST 23558-94 standard, gravel-sand, reinforced soil, processed materials, cement consumption, slag portland cement, brand, motor grader, compacted condition, road defects, road surface, quality indicators, strength parameters, compaction works, primer.

### Introduction

Protection of snow-covered parts of the road from snowdrifts is carried out to prevent the formation of snowdrifts due to snowstorms on highways. Snow protection is not provided in the following cases: when the calculated annual volume of snowfall in areas where the road passes through irrigated or drained lands, arable lands, perennial orchards and vineyards is 25 m<sup>3</sup> per 1 m of the road; when the calculated annual volume of snow on the roads passing through other places is 10 m<sup>3</sup> per 1 m of the road; when the roadside is higher than the calculated level of snow cover, the height of which is higher than the height specified in QMQ "Roads" 2.05.02-95; if the snow capacity of the carvings is greater than the amount of snow that falls on the road. Roads are protected from snowdrifts by means of snow protection devices placed around the road. Snow protection devices can be installed permanently or temporarily (during winter use). The following snow protection measures can be used to protect roads from snowdrifts: I - used to block snow; Used to prevent snowstorms (blowers).

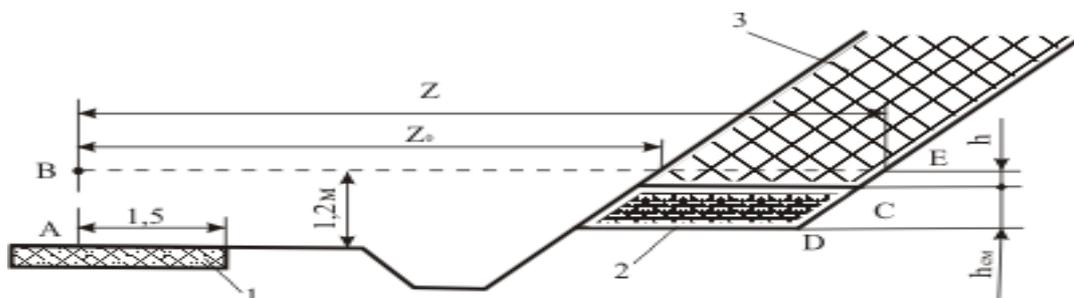


Figure 1. Snow piles on the curves in the plan

Protective equipment used in snow cover includes: snow-protective wood strips, snow-covered walls, collecting platforms in carvings, portable barriers in carvings, made of polymeric materials nets, snow protection devices, barriers made of local materials and conditions of their use are given in Table 2.

Table 2

Snow traps, snow protection devices. Appropriate Terms of Use A brief description of the advantages and disadvantages.	Snow traps, snow protection devices. Appropriate Terms of Use A brief description of the advantages and disadvantages.	Snow traps, snow protection devices. Appropriate Terms of Use A brief description of the advantages and disadvantages.
Snow-covered forest	Snow-covered forest belts	Snow-covered forest belts
Snow retaining walls	Snow retaining walls	Snow retaining walls
Optional	Optional (accumulators)	Optional (accumulators)
Portable barriers	Portable barriers	Portable barriers
Polymer nets are used	Polymer nets are used	Polymer nets are used
Snow protection device made of snow. Snow-covered slopes are used in all cases except	Snow protection device made of snow. Snow-covered slopes are used in all cases except snowmobile	Snow protection device made of snow. Snow-covered slopes are used in all cases except
Stone wall	Stone wall	Stone wall
Barrier made of local	Barrier made of local	Barrier made of local

Snow-covered trees are the most effective means of snow protection. If the trees are not yet covered with snow or cannot be used due to soil, climatic or other conditions, then artificial snow protection devices should be used.

### **Conclusion**

During the snowfall, the road surface should be treated with chemicals or a mixture of sand to prevent the formation of snow. During the period when the snowfall is 1-3 mm / h, 10-15 minutes after the onset of snowfall, the road surface is sprayed with chemicals. In the case of weak snowfall of 0.5-1 mm / h, spraying of chemicals on the road surface begins 20-30 minutes after the onset of snowfall. It is advisable to treat liquid chemicals when it starts to snow. After the snow has been treated, it is necessary to wait until the time of exposure to the chemicals sprayed before sweeping the road. The carriageway is started after the snow and snowdrifts are crushed and scattered under the influence of chemicals and motion. Under normal circumstances, the snow is thoroughly swept away 2-3 hours after it has been treated with chemicals. All winter maintenance work on the roads should be carried out in an orderly manner. The control is carried out by periodically moving the snowplow plugs from the beginning to the end of the snowstorm and snowfall period.

Cleaning can be done with snowplow trucks or with individual vehicles traveling at speeds of 35-40 km / h, depending on the intensity of snowfall or blizzard. Snow plows are used to push the road from the axis of the road to the side of the road. The machines move in a row, at a distance of 30-60 m from each other. A car near the side of the road can launch a side wing.

Clearing of road sections passing through slopes will start from the upper slope and will continue towards the lower slope during the next passage of vehicles.

Snow tops are removed using rotary snow blowers. If the snowdrifts are moving towards the ditch next to the road, an external working member will use snow plows to remove them. Universal bulldozers (designed for a variety of jobs) are used in conjunction with motor graders or wheeled rotary rotors to remove snow from the tops of ditches along the road. A motor grader pushes the snow off the road, and a rotor snowplow throws it out.

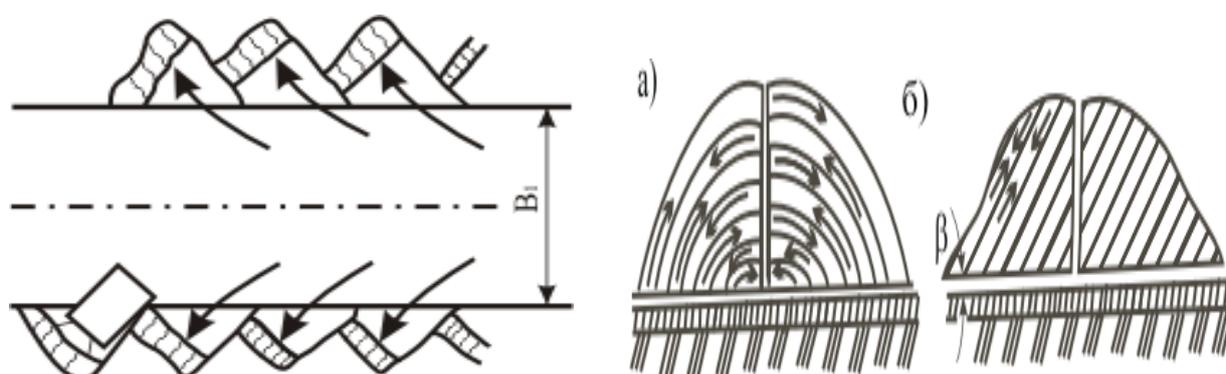


Figure 2. Road cleaning scheme with a non-turning bulldozer, Avalanche cleaning scheme:

a - "on the winding" (longitudinally); b - "slope" (longitudinally).

As long as the joints are not too long, they should work without twists. Snowplows work with the slope of the pile at an angle as large as possible to the horizontal plane. Circuit snow removal can be done by using bulldozers to push the snow down the slopes. When rotating snow piles are treated with rotary snow plows, the cleaning is carried out in short - "cutting" sections due to the small radii of these roads.

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