Stabilization of the steep slopes near the abutment of a bridge of a highway – interchange

The challenge

- The construction of a new highway interchange needs high embankments with steep inclination in order to reach the height of the bridge.
- Severe rainfalls lead to landslides, blocking the highway under the bridge, interrupting the traffic of vehicles.

About GeoGlobe® Europe

Being aware of the geological, ecological, economic and human challenges of our century, GeoGlobe® Europe company designs and manufactures geosynthetic systems for soil stabilization and erosion control and puts its know-how and its experience in service of the Earth Stabilization.

Being dynamic, GeoGlobe® Europe consists of a team of specialists with a permanent and consistent participation in the world’s geosynthetic committees.

GeoGlobe® Europe continuously invests in research and development of technologies whose effectiveness is proven in long terms.

Based on many years of experience in studying and realization of geosynthetic solutions applied in the infrastructure projects and terrain stabilization, we focus on the feasibility and durability of the solutions.

GeoGlobe® Europe takes care to offer today’s customized solutions harmoniously combining the technical performance at the level of civil engineering with the human pledge including the socioeconomic development and the ecological engineering in respect to the environment for a more stable future.
The Solution
To stabilize and protect the slope with the units of GeoGlobe® in order to keep the terrain stable and to ensure the safe traffic of vehicles.

The old method
The classical method comprises of compacting the local soil or placing granular expensive materials which are very difficult to compact, in structure of steep inclination from where the angle of failure begins. To the landslides which may occur after the construction of the highway interchange, the terrain is simply compacted without any protection.

GeoGlobe® approach and its advantages
The strips of GeoGlobe®, whose cells are filled with a mixture of gravel, vegetated soil and seeds, gives the opportunity to stabilize the slope in order to reduce the hydraulic energy of the rain drops by the gravel. The soil with seeds also contributes to the establishment of the vegetation, for the stability and aesthetics view of the site.

GeoGlobe® technology – effectiveness, durability, safety and economy
After the preparation of the soil at the site, a layer of GeoGlobe® is putted over a non-woven geotextile and then it is strongly anchored. The cells are filled with a mixture of gravel soil and seeds.

The result
The slopes are perfectly protected against erosion while providing a “green” coverage. The traffic is safe.