KORDÁRNA

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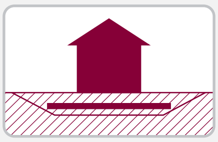
BASAL REINFORCEMENT



Karlovy Vary

commercial centre

country: Czech Republic

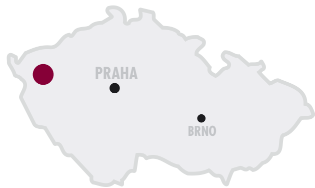
realization: 2004

material: Armatex® G 80/80 .... 32.400 m^2

ARMATEX® G

woven geogrid from high-strength PET with PVC adjustment for soil reinforcement

purpose of usage:
improvement of subsoil´s bearing-capacity with soil reinforcement



The project is concerned with increasing bearing capacity of the base course and improving mechanical properties of subsoil for the construction of a business centre in Karlovy Vary. After demolition of the former light buildings, the whole area of the building site was tidied up by construction machinery, followed by manual removal of all rest of sharp objects. First was spread a layer of clayey gravel and sand, fraction 0-32 mm, in thickness 300-500 mm, this layer was compacted by vibratory roller. **Armatex® G** 80/80 geogrid was spread on this layer with overlaps 10 m beyond the boundaries of the actual hypermarket hall.

Subsequently, the plan of piles was measured (module 6-12 m, 280 pcs. of piles, diameter 600-900 mm) and the openings in the geogrid (for the pilots) were done. A fill layer 300 mm of gravel and sand of fraction 0-32 mm was compacted by vibratory rollers, followed by adding further fill 1-2 m up to the height of the bored piles heads. A further step was the actual pile boring.

SG-Geotechnika elaborated a mathematical model for embankment subsidence for this job-order. The aim of this model was to calculate subsoil deformation and the consolidation time-behaviour. The embankment will be built of local materials (granite eluvium) so that its crown should be poised 1 m over the centennial water level. **Armatex® G** geogrid, strength of 80/80 kN/m, will be stretched below the embankment. To make calculations, 3 modules of the Geo-Slope® program system were used. Simultaneous setting modules in action deals with the interactive joint action of tension, deformation and pore pressure and better approximates actual conditions.

Profiles will experience an overall subsidence of approx. 2.5 to 3.5 cm during construction work. A further subsidence (approx. 1 cm) will be caused as a result of loading of the embankment by the construction itself. The overall consolidation will be attained within 1 year and a deformation increment, following construction of floors, will be around 0.5 cm.

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TBU

Factory Production Control Certificate 0799-CPD-19

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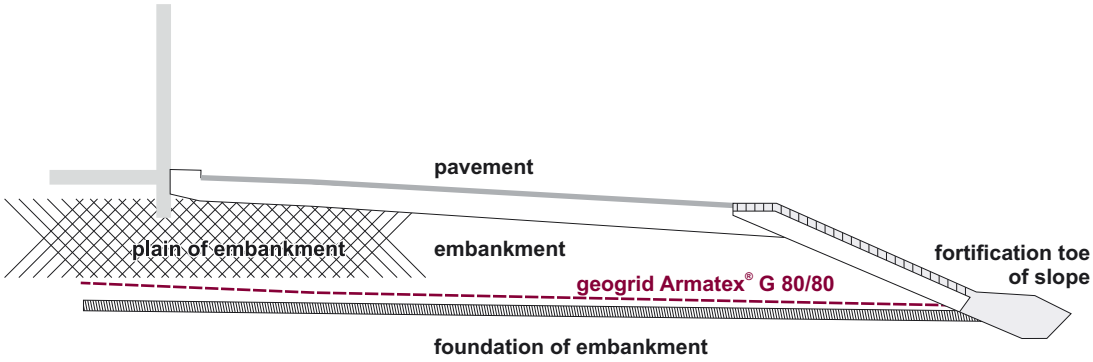






investor:
AUSTRIA INVEST, s.r.o.,
České Budějovice
building owner:
Spar Česká obchodní společnost, s.r.o.
designer:
Helika, a. s., Praha
architect:
CVZ, Czech Republic
contractor:
IMOS Brno, a.s., Brno
geological survey
AGE s.r.o., Praha
TERRATEST s.r.o., Praha
earth works:
APB Plzeň, a.s.
realization:
2004

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