

Reconstruction of embankment Fedorovsky in Nizhniy Novgorod.
Slope protection.
Russia, Nizhny Novgorod

Environmental/Hydraulic & Erosion control/Slope protection

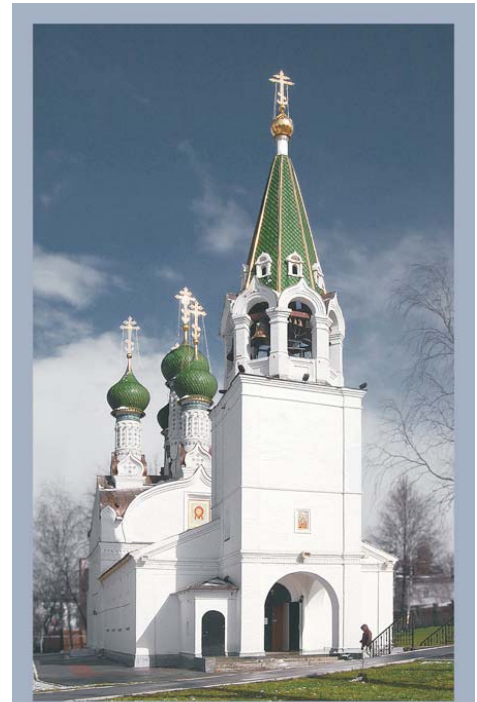
Solution: MacMat R, Reno Mattresses, Gabions

Description

Maccaferri Gabions CIS in collaboration with the State Design Institute "NizhegorodgrazhdanNIIproyekt" worked on a project to protect the historically significant Fedorovsky embankment in the city of Nizhny Novgorod in 2007. Nizhny Novgorod during the Soviet period was named Gorky after its most famous writer, Maxim Gorky, who was born there.

The embankment is treasured for its prospect of the confluence of the Volga and Oka rivers and the Kanavinsky bridge. Walkways and foot bridges adorn the embankment along which are located the Nizhegorodsky Kremlin, the village of Ilynskaya with its two XVII century churches, the Nizhegorodsky cloisters and cathedral, and a little house once visited by Peter the Great. The embankment was last given any serious engineering attention in the 1960s.

The embankment comprised 24 hectares of soft soils and gullied land, the result of 5 active underground springs. Engineers from "Nizhegorodgrazhdan-NIIproyekt" faced a problem of working out erosion control measures for steep slope protection; the height of the slopes of the embankment in some areas exceed 62 meters. Restoration of the embankment required the construction of berms and leveled terraces to support observation areas.



Pic.1



Pic. 2



Pic. 3

Solution

The Technical Department of "Maccaferri Gabions CIS" offered rolled material MacMat R for slope protection from washout and the progress of erosion. Embankment slopes varied from 1:1.5 to 1:2. MacMat R not only solved the problem of erosion, but facilitated greening of the slopes even before construction works were completed. Additionally, the Maccaferri project technical team offered to reinforce several bridge abutments with gabion construction. This solution was accepted by "NizhegorodgrazhdanNIIproyekt" and the mayor's office. During construction the site was visited by Maccaferri Gabions CIS engineers to assist with onsite training and installation of the MacMat R material. The project was completed successfully in 2008.

Client:

Nizhny Novgorod city Administration, mayor's office.

Designer:

"NizhegorodgrazhdanNIIproyekt"

Contractor:

«Stroyengineering» LLC

Consultant:

«Maccaferri Gabions CIS» LLC

Solution:

MacMat R 98 000m², Reno Mattresses 3x2x0,23m
Gabions 2x1x1m.

Timing:

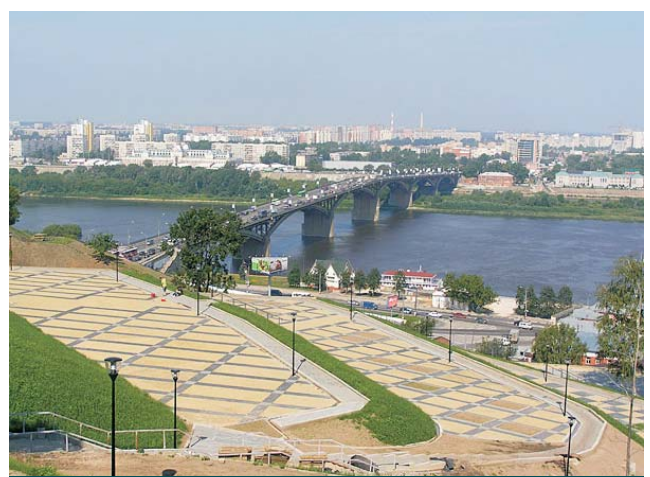
Construction date:	December 2007
Completion date:	November 2008



Pic.4 During construction



Pic.5 During construction



Pic.6 After the construction is completed

«Maccaferri Gabions CIS» LLC

7, Melnikova str., 109044, Russia, Moscow

Tel.: +7 (495)937-58-84; Fax: +7(495)674-67-40

E-mail: info@maccaferri.ru; Web site: www.maccaferri.ru