

## SOIL REINFORCEMENT RALEIGH COUNTY, WEST VIRGINIA, USA

### WELDED WIRE WALL

**Product:** “L” Panels, MacGrids, MacMat

#### Background

The New River Gorge National River is a unit of the US National Park Service designed to protect and maintain the New River Gorge in southern West Virginia. The New River Gorge National River, established in 1978, stretches for 53 miles from Hinton, WV in Summers County to Hawks Nest State Park at Ansted, Fayette County and has over one million visitors every year.

#### Problem

The New River Gorge experienced severe flooding in 2001 which caused several failure areas along Glade Creek Road. This road provides access to the Grandview Sandbar and Glade Creek campgrounds and river access areas. Numerous sections of the gravel road washed out in recent years, requiring major repairs.

#### Solution

The United States Federal Highway Administration designed a MSE (Mechanically Stabilized Earth) system to repair the damaged sections of roadway. Maccaferri’s Welded Wire Wall system fit the requirements perfectly. Our system is made using a welded wire “L” shaped unit with an 18 inch vertical and 18 inch horizontal measurement. Each panel is 10 feet long with a 90 degree bend along it’s centerline. Maccaferri’s Welded Wire Wall system is used in combination with MacGrid® and MacMat® for soil reinforcement, erosion control and vegetation establishment.

Orders Construction, of St. Albans, WV, placed the welded “L” panels and Maccaferri’s MacGrid® WG series geogrids in 18 inch lifts to stabilize the structures. Different reinforcement lengths were used for the various failure areas. Maccaferri’s MacMat® was placed along the face of the structure to increase the soil’s resistance to erosion by enhancing the growth of vegetation

Client:

NATIONAL PARK SERVICE

Main contractor:

ORDERS CONSTRUCTION

Designer:

FEDERAL HIGHWAY ADMINISTRATION

Products used:

WELDED “L” PANEL FACING- MACGRID®- MACMAT®

Date of construction

SPRING / SUMMER 2007



Slope Failure—7 Total Slide Areas



During Construction



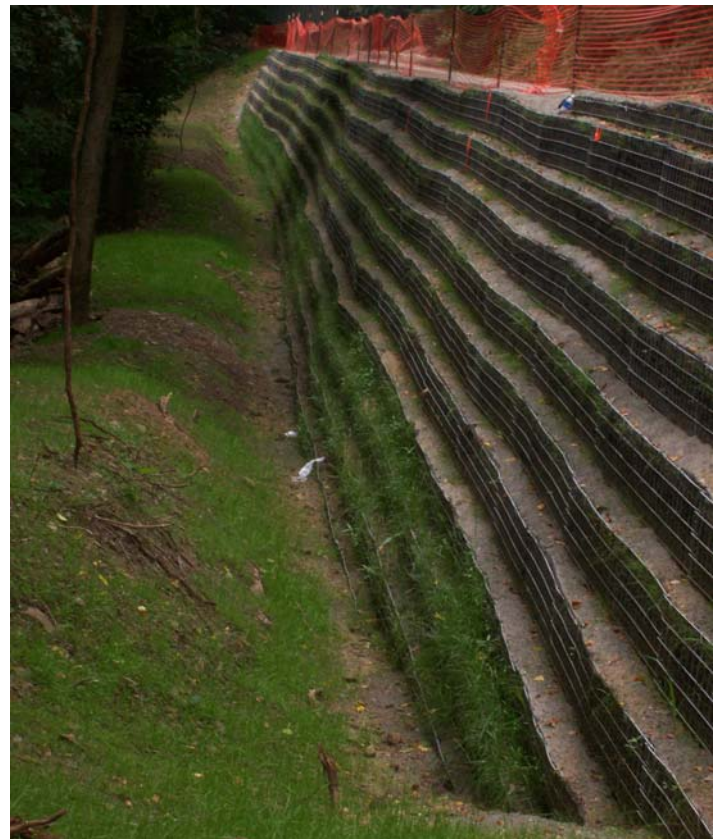
Wrapped Grid Face with MacMat TRM



Completed Wall — Awaiting Guardrail

## Construction

Construction took longer than expected, due to recurring wash-outs and slides. In January 2008, the National Park Service officially re-opened the Glade Creek Road. "We are so pleased to announce that the Glade Creek Road is now open all the way to the Glade Creek Campground," proclaimed Don Striker, Superintendent of the New River Gorge National River. Located just off Highway 41 near Price, WV, the Glade Creek Road is popular with fisherman, campers, and river users. The completed road provides access to the Grandview Sandbar, Glade Creek campgrounds, and several river access areas.



Vegetation Being Established

## Working with Maccaferri

For over 125 years, Maccaferri has provided engineering expertise to clients around the world. We believe that the combination of our professionalism, design software, technical and site assistance services and our aim of providing the best products in the market, sets us apart from our competitors. We are certain you will agree.

# MACCAFERRI

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