

KDOT K-7 Channel Stabilization Case Study



The Midwest's Most Trusted Site Solutions Provider

Project: K-7 Roadside Erosion Repair

Location: Hwy. 7 just North of Troy, Kansas in Doniphan Co.

Application/Solution: Conlock II Concrete Block Revetment System

Market Sector: Transportation

Salesperson: John Warren

Owner: Kansas Dept. of Transportation (KDOT) District 1

Engineer: KDOT & Pavestone

Contractor: KDOT District 1

Maintenance Crew

Installed: November 2010

case study



case study

Challenge

Repair a riprap channel adjacent to Hwy. 7 that receives an overabundance of runoff from adjacent fields and is carved from highly erodible Loess soils. Channel is a safety hazard and causing issues with adjacent landowners and maintenance personnel.



1 Extreme Erosion in the Loess Soils.

Solutions

Runoff was directed into a Conlock II flexible channel liner that can control the velocities and volumes that the 36" d50 riprap could not. Conlock II 6" & 8" was installed by KDOT's own District 1 Maintenance Crew over a heavy duty Mirafi geotextile and protected on the edges with an SC250 Turf Reinforcement Mat and S150 Erosion Control Blankets from North American Green as well as Rice Straw Wattles.



2 Typical Loess Soil erosion creating vertical cuts.

Results

Runoff was "channelized" and properly directed to the existing creek at the toe of the slope, the surrounding soils were protected and vegetated and the resulting solution earned an "Example of Excellence Award" from the Secretary of Transportation.



3 Upstream toe protection.



Products

Manufacturers included in solutions and product:

Product: Conlock II 6" & 8" Concrete Block Revetment System

Manufacturer: Pavestone, Lee's Summit, MO

Product: Mirafi 1100N Geotextile
Manufacturer: Mirafi

Product: SC250 Turf Reinforcement Mat & S150 Erosion Control Mat
Manufacturer: North American Green



4 Integrating the Conlock II block into the side slopes.



5 Looking upstream from the midway point.



6 Vegetation on the adjacent slopes under a Turf Reinforcement Mat.



7 The channel 4 years later, no problems!

Company Information

ASP Enterprises, Inc. and Quick Supply Co. For more than three decades, A.S.P. Enterprises and Quick Supply Co. has served the erosion control industry with integrity and expertise. We provide engineers and landscape contractors the exceptional value for their money and have grown to become the Midwest's full-line distributor of erosion-control, geosynthetics, storm water management products, wall block, landscape pavers, and drainage products.

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