

# **Case Study**

application	Base Reinforcement
location	I-76 and 96th Avenue, CO
product	Mirafi® RS580 <i>i</i>

TenCate™ develops and produces materials that function to increase performance, reduce costs and deliver measurable results by working with our customers to provide advanced solutions.

## THE CHALLENGE

Castle Rock Construction Co. (CRCC) is the contractor for this \$4 million safety improvement project at the interchange of I-76 and 96th Avenue. This project realigns northbound and southbound 96th Avenue onto the new roundabouts at I-76th. The contractor was allowed to shut down the project from January 1, 2010 until the middle of April 2010, when the temperatures were more acceptable for paving. During the winter shut down, a large snow drift amassed at the location of the new realigned eastern frontage road. As CRCC started to grade this area, the sub grade soils were pumping due to the high moisture content from the melted snow pack.

#### THE DESIGN

Castle Rock Construction Co. recommended to the owner, CDOT, that the area should be over excavated and a geotextile and road base should be used to reinforce the soft subgrade areas

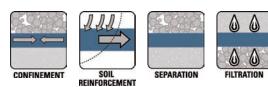
### THE CONSTRUCTION

The owner agreed on the recommendations from CRCC. CRCC over excavated and removed the wet soils, installed Mirafi<sup>®</sup> RS580*i* woven geotextiles, and placed the road base to the subgrade elevation for paving.

#### THE PERFORMANCE

The stability of the subgrade area in concern met CDOT's specification after Mirafi® RS580*i* woven geotextiles and road base were placed. The contractor was able to pave the roadway on schedule.

Protective & Outdoor Fabrics Aerospace Composites Armour Composites Geosynthetics Industrial Fabrics Synthetic Grass



job owner	Colorado Dept Of Transportation (CDOT)
engineer	Don Lopez
contractor	Castle Rock Construction Co. (CRCC)



Installation of Mirafi® RS580i.



Placement of base material on Mirafi® RS580i



Base material being end-dumped on to Mirafi® RS580i.



# Mirafi<sup>®</sup>



Completed installation looking West.



Placement of Mirafi® RS580i looking East



Completed installation of finished pavement on Mirafi® RS580i.



Completed installation of finished pavement on Mirafi® RS580i.

TenCate<sup>TM</sup> Geosynthetics North America assumes no liability for the accuracy or completeness of this information or for the ultimate use by the purchaser. TenCate<sup>TM</sup> Geosynthetics North America disclaims any and all express, implied, or statutory standards, warranties or guarantees, including without limitation any implied warranty as to merchantability or fitness for a particular purpose or arising from a course of dealing or usage of trade as to any equipment, materials, or information furnished herewith. This document should not be construed as engineering advice.

Mirafi® is a registered trademark of Nicolon Corporation...

© 2010 TenCate Geosynthetics North America



365 South Holland DriveTel 800Pendergrass, GA 30567Tel 706

 Tel
 800
 685
 9990
 Fax
 706
 693
 4400

 Tel
 706
 693
 2226
 www.mirafi.com

00 QUALITL accretited accret





materials that make a difference