



Case Study

application **Base Stabilization**
location **Rockford, IL**
product **Mirafi® RS380i (3,500 sy)**

job owner
engineer
date of installation

Van Matre Health
Arnold Lundgren and Associates
October 2011

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

The parking lot at a medical facility in Rockford, IL was being redone and expanded. The pavement on the parking lot was cracking and had shown signs of failure for several years. Water was coming up through the pavement, indicating a poorly drained base course.

THE DESIGN

Underdrains were installed and edge drains were placed to remove the collected water. Several "soft" areas were noted during sub-grade preparation. TenCate Mirafi® RS380i* woven geosynthetic was selected to bridge over the soft areas.



Proof roll showing some rutting of subgrade prior to placement of Mirafi® RS380i



Stone being placed over Mirafi® RS380i.

THE CONSTRUCTION

The subgrade was cut to depth after the removal of the old pavement section. A proof roll was done to confirm compaction. Some movement was noted, so Mirafi® RS380i was placed on the subgrade. The engineer was concerned about movement of the geotextile during installation so 3M adhesive was used at the seams. Mirafi® RS380i was overlapped 6", then a layer of the adhesive was sprayed on and the two layers were pressed together. A 6" lift of stone was placed with a tracked skid steer. Curb and gutter were installed and the parking lot was paved with asphalt.

THE PERFORMANCE

The pavement section has performed well since the installation in October, 2011. Mirafi® RS380i allowed the soft soils to stay in place without increasing the stone depth or increasing the undercut. Mirafi® RS380i provided separation and confinement and also provided drainage and filtration for the base course and soil subgrade.



Stone continues to be placed using lightweight equipment



Glued seams allow RS380i to stay in place and maintain overlap while being installed

*Patent pending

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