



Case Study

application	Subgrade Reinforcement
location	Windsor High School, Sonoma County, CA
product	Mirafi® HP270

job owner	Windsor School District
engineer	Carlile Macy, Santa Rosa
contractor	Team Ghilotti

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 owner Of Windsor High School was interested in replacing an aged natural turf field with a new synthetic grass sports field. The old natural turf field had been problematic due to poor soil conditions at the site. It was hoped that the new synthetic grass would be less costly to maintain and provide a uniform surface for sports conducted on the field.

THE DESIGN

The engineer chose to specify TenCate Mirafi® HP270 high performance geotextile because of it's versatility for the site needs. Not only did Mirafi® HP270 offer separation between the rock and sub-base layer, it also served as reinforcement for the subgrade. In addition, the water flow rate of 50 gpm/sq.ft allowed Mirafi® HP270 to be used as the drainage fabric in the french drain system under the entire sports field. Utilizing one geotextile for all the needs at the site simplified the process from ordering to installation.

THE CONSTRUCTION

The construction needed to be completed by mid October so the Windsor Jaguars could play their first homecoming game on the new field. By using Mirafi® HP270 for all three site needs: separation, reinforcement and drainage, the contractor was able to quickly deploy the material with less waste than would have occurred using different geosynthetics for the different site requirements. The project came in on time and under budget, thanks in part to the use of the versatile Mirafi® HP270.



The convenient tri-pak packaging of Mirafi® HP270 made deployment at the jobsite quick and efficient.



Mirafi® HP270 was deployed as a drainage fabric under the entire field as well as for separation and reinforcement below grade.

"When we were awarded this project, we contacted Stevenson Supply and let them know we had a creative idea on how to install the fabric for the drainage structure as well as a separation fabric for the subgrade and the permeable rock over the fabric. Mirafi® HP270 came in packaging that made deployment simple and fast while cutting and placing the fabric for odd shaped or curved locations was easy and quick. As there were strict grade requirements for the rock placed over the fabric we placed the rock through our paving machine over the entire ball field area. Mirafi® HP270 woven geotextile performed great while placing the section over it. We completed the project on time for the homecoming football game and the field was a complete success" Paul Donaldson – General Manager – Team Ghilotti, Inc.



Cutting and placing the fabric for curves around the perimeter was simple and quick.



By early October the field was nearly ready for the homecoming game that took place later that month.

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