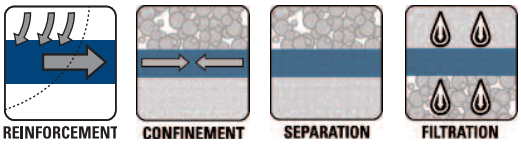
TENCATE Mirafi®



Case Study

application	Subgrade Reinforcement	job owner	City of Sausalito
location	Sausalito Yacht Harbor, Sausalito, CA	engineer	Kyrk Reid
product	Mirafi® RS380*i*	contractor	Reyes Construction, Inc
		date of installation	December 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 for the Sausalito Yacht Harbor had been troublesome for years. Built over bay mud with debris and rubble fill under the asphalt, the parking lot had been a maintenance problem for years. Some sections of the parking lot needed yearly patching maintenance, just to keep it in use. The owner decided to completely rehabilitate the parking lot to give the lot a clean finish (free of patches) and end the nightmare of constant patching repair work. During construction of the new parking lot, the contractor found that he was unable to compact the saturated subgrade to the 95% that was required in the design. They needed a solution that would allow them to reinforce the soft saturated subgrade and get the desired compaction that was required.

THE DESIGN

TenCate engineers recommended using TenCate Mirafi® RS380i* woven geotextile as a solution for reinforcing the subgrade and creating a stable platform for the rehabilitation of the parking lot. Mirafi® RS380i offered all of the features needed for the successful outcome of the project. Mirafi® RS380i combines the qualities of separation, high tensile modulus, 75 gpm water flow, and high soil interaction in one geosynthetic product.

The unique orange colored Mirafi® RS380i arrived at the site with plastic protective covers.

Mirafi® RS380i was deployed manually over the rubble and debris fill.

*Patent Pending

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

TENCATE™
materials that make a difference

THE CONSTRUCTION

Mirafi® RS380i was deployed by hand over the poor subgrade easily by two laborers at the site. Due to the superior performance of the geotextile, the contractor was able to reduce the aggregate layer from 12 inches to 10 inches while still easily achieving the desired 95% compaction requirement. Finally, 4 inches of asphalt were placed over the aggregate to complete the installation.

THE PERFORMANCE

The contractor was able to achieve a stable reinforced subgrade by using Mirafi® RS380i. They were able to reach the desired compaction needed and eliminate 2" of aggregate for a net cost savings for the overall project. Mirafi® RS380i not only provided a stabilized platform for the parking lot, it also provides a permanent separator to keep the fine grained soils of the underlying subgrade from infiltrating into the aggregate section (bearing capacity will decrease if fines are allowed to infiltrate the aggregate). It is estimated that the parking lot will last a minimum of 50% longer than anticipated by using Mirafi® RS380i to reinforce the subgrade.

Using Mirafi® RS380i in the parking lot allowed the design to reduce the aggregate from 12 inches to 10 inches.


4 inches of asphalt were placed over the compacted aggregate to complete the parking lot rehabilitation.

*Patent Pending

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