



Case Study

application | Base Stabilization
location | Madison, WI
product | Mirafi® RS580i (7,000 SY)

job owner | City of Madison
engineer | City of Madison
contractor | R.G. Huston
installed | September 2010

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 City of Madison, WI needed to widen Hanson Road to provide relief for higher traffic volume. Development in the area required greater capacity and the road was showing significant signs of deterioration under current loading. Furthermore, soft soils in the area were not conducive to road construction.

THE DESIGN

The standard design called for removal of all "inadequate" soils. Due to the depth of the weak soils, a thinner cross section was desired. Removal of the full depth of peat would be very costly.

THE INSTALLATION

For the installation, we undercut 1' and then installed patent pending Mirafi® RS580i woven geosynthetic. After Mirafi® RS580i was installed, 1" of 3" limestone with fines was placed, then 6" of 3" limestone without fines was placed. This was followed up with 10" of 1 1/4" limestone and recycled asphalt. Since this road runs through a marsh, raising the road did not affect any driveways. After all the stone and Mirafi® RS580i were installed, 5 1/4" of e3 asphalt pavement was laid.



Hanson Road prior to upgrade.



Cutting through low lying, soft soils and flags for widening.

THE PERFORMANCE

Mirafi® RS580i saved the city considerable money because we didn't have to excavate approximately 5' of peat and then replace the void with stone. The road was test-rolled prior to paving to make sure the asphalt contractor would not have a problem with the subgrade. It was approved with no stipulation just as if we would have undercut the full depth of peat.



Installation of Mirafi® RS580i beneath 3" of rock.



Construction continues upon completion of compaction. The revised cross section with Mirafi® RS580i passed proof roll.

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