



Rail Switches Built Over Swamp Land Show Immediate Improvement with Tensar FilterGrid

Stabilization of Rail Switches

📍 New Castle, Wyoming

CLIENT CHALLENGE

In 1995, a section of track was built in an area known as the “coal loop.” The track was originally constructed over a swamp with 20 feet of extremely soft bentonite subgrade. The rail line frequently carried loads of 90 MGT or more, causing the subgrade to move under the heavy cyclical loads and the ballast to foul over time. These fouling issues caused the owner to seek a stabilization solution for its rail switches on the track.

TENSAR SOLUTION

It was recommended in the original design to over-excavate 4-5 ft of the material and replace it with new sub-ballast. Working with the consultant, Olsson recommended a Tensar solution that used FG90 Filtergrid and would reduce the undercut to around 2.5 ft.

FilterGrid stabilizes rail structures by providing confinement, separation and filtration. The confinement offered by properly designed, stiff geogrids improves load distribution and enhances the performance and durability of these structures over time. The owner originally planned to stabilize two of the switches, but after immediately seeing great results, decided to stabilize all four switches.

Olsson
Consultant

BNSF
Owner

FG90 FilterGrid
Product

Tensar[®]

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