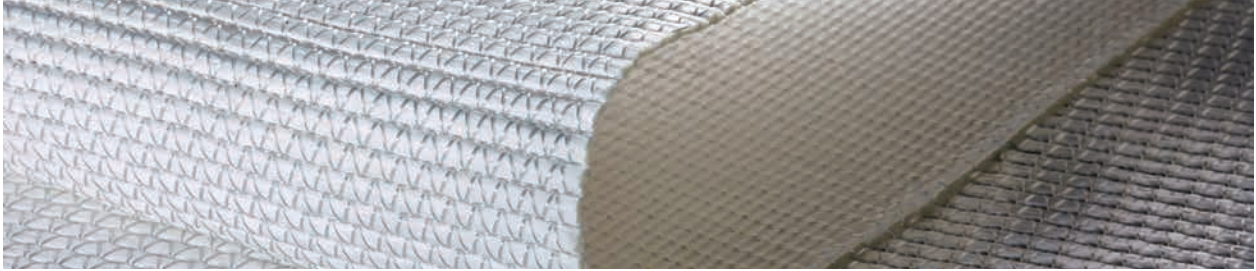




Earthworks and Foundations

Soft Soils Reinforcement

Memorial Drive-Duck Creek Mainline IH 43 Interchange, Green Bay, WI Stabilenka® High Strength Geotextile



Task

In the fall of 2013 and through the summer of 2015, reconstruction and improvements of 29 interchanges along the I-41 Mainline from Memorial Drive to Lakeview Drive were implemented. In an effort to improve traffic efficiency and decrease congestion, interchanges were reconfigured and/or updated. The changes and improvements were designed and managed by the WIDOT.

Solution

In order to improve the shear strength of some of the proposed bridge approach embankments foundation soil, the WIDOT designed and required the use of a high strength geotextile between the foundation and embankment soil layers. The design stipulated an ultimate strength of 68,532 lb/ft (machine direction), a tensile strength @ 5% of 27,413 lb/ft (machine direction) and included a long term design strength specification of 33,983 lb/ft (machine direction). After careful project specification review by HUESKER Inc, it was determined that HUESKER's High Strength Geotextile could and would meet the project specification and work best for improved embankment stabilization. To accommodate desired construction efficiency, HUESKER's High Strength Geotextile was produced in contractor/installer requested roll lengths which reduced installation time

and material waste. HUESKER's solution was produced for and delivered to Hoffman Construction and installed by Geo-Synthetics, LLC.

47,807 yd² of HUESKER's High Strength Geotextile was ordered by Geo-synthetics, LLC and delivered to Hoffman Construction for installation between bridge approach embankments and supporting foundation soils by Geo-synthetics, LLC. Geo-synthetics, LLC was required to sew adjacent panels to meet 50% seam efficiency compared to project specified high strength geotextile cross machine strength (6,853 lb/ft).

In conclusion, HUESKER's High Strength Geotextiles solutions provided an economical and viable design and construction option for the Memorial Drive-Duck Creek Mainline IH 43 Interchange project.

Project: Memorial Drive-Duck Creek Mainline IH 43 Interchange

Location: Green Bay, WI

Distributor/Contractor: Geo-Synthetics, LLC/Hoffman Construction

Construction Period: Fall of 2013-Summer 2015

HUESKER Product: High Strength Geotextile

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