

# AIRPORT TAXIWAY

## MYRTLE BEACH INTERNATIONAL AIRPORT

GEO PRODUCTS, LLC | ENVIROGRID® GEOCELL

### *Background*

The Myrtle Beach International Airport (MBIA) & Horry County were responsible for the expansion project for the International Technology and Aerospace Park (ITAP). This first phase required construction of a taxiway to connect the ITAP terminal to the MBIA ramp.

### *Technical Information*

#### MATERIALS USED:

EnviroGrid® EGA308" PT-8

Sandy Soil, #57 Stone Aggregate,  
Portland Cement Concrete

#### APPLICATION:

Soil Stabilization

#### PROJECT LENGTH:

1 year



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## *Problem & Objective*

The \$5.45 million project included removing soil, preparing the subgrade, and installing concrete with the ultimate goal of constructing a service road to connect the general aviation ramp. Tight budgets and challenging soil conditions caused the engineers to consider options that would reduce the required thickness of materials. The original design called for 30 inches of aggregate subbase, 8 inches of cement stabilized base, capped with 24 inches of Portland cement concrete.

## *Design Solution*

The full system consisted of a non-woven geotextile fabric on top of the sub-grade, the EnviroGrid® layer, a cement stabilized base layer, and a Portland cement concrete cap. A 42% reduction in system depth from 62" to 36" was achieved by using the EnviroGrid® system.

## *Construction Overview*

The sub-grade was prepared and materials were brought on site. A non-woven geotextile fabric was rolled out onto the prepared sub-grade. The EnviroGrid® was staked out with straight rebar and filled with sandy soil, leaving an overfill of 2" after compaction to achieve a depth of 10". A 4" drainage layer of #57 stone crushed aggregate was laid on top of the EnviroGrid®. The contractor came in with 8" cement-stabilized base and finished the system with 16" deep layer of Portland Cement Concrete. A bond breaking tack coat material was sprayed on between the two cement layers.



## *Results*

The EnviroGrid® system was chosen for the airport taxiway in order to reduce the layer thickness, add stability to the cross-section, and reduce costs. As mentioned, alternative options would have involved a 72% increase in total system layer thickness with additional costs in transportation and materials. The project was completed on time, and the EnviroGrid® outperformed expectations.