

# ROAD CONSTRUCTION OVER SANDY SOIL

GEO PRODUCTS, LLC | ENVIROGRID® GEOCELL

## *Background*

Construction of a meteorological station for the government of Japan led to the need of a road that could withstand the traffic flow of heavily weighted vehicles over sandy soils.

In an extremely remote area where aggregate material for road construction was not available, EnviroGrid® Geocell provided a solution that not only was sustainable, but allowed for the use of these locally available materials. The geocell confined the infill material, cutting down on the amount of material needed, and allowed the roads to be constructed quickly and efficiently.



## *Technical Information*

### MATERIALS USED:

- EnviroGrid® EGA20 6"
- Non-woven geotextile fabric



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## *Design Solution*

The EnviroGrid® Geocell was chosen as the best option for the access road, as it provided a cost-effective and sustainable solution for this area where limited infill material options were available. Due to the effect on the structural coefficient of sand, EnviroGrid® not only allowed for the use of locally available sands, but also increased the structural number of the sand through its confinement abilities, which in turn, cut down on the amount of aggregate needed.

## *Construction Overview*

The road was graded and compacted in order to prepare the sub-grade. The EnviroGrid® panels were installed over a non-woven geotextile that provided a separation layer between the sub-grade and geocell. The cells were then filled with locally available sandy soils.

## *Results*

The EnviroGrid® Geocell was the solution for the construction of this access road within a remote area with a harsh environment and limited construction materials. The road was able to withstand the traffic flow of heavy loads within the harshly cold temperatures of the South Pole climate.

