GEOWEB®

SITE ACCESS/MAINTENANCE ROAD

Transmission Line Access Through Wetlands

PROJECT TEAM

Owner:
Duke Energy

Engineer:
Pickett & Associates, Inc.

Contractor:
Elite Construction of Ocala, Inc.

Material Supplier:
R.H. Moore & Associates, Inc.

Information Source Credit

DUKE ENERGY.

Wet, muddy ground through swamps and farmland prior to installation of new GEOWEB® stabilized road for transmission line access.

DUKE ENERGY PX LINE

Callaway to Port St Joe, FL

Delivering & Spreading GEOWEB Infill

Rebuilding Roads, Replacing Transmission Lines Damaged During Hurricane Michael in Florida's Panhandle.

Project Background

Hurricane Michael caused extensive damage to Florida's power grid network, leveling more than 100 transmission towers in a 34-mile right-of-way from Port St. Joe to Callaway. This right-of-way crosses swampy, remote and hard-to-reach areas, making rebuilding the grid even more challenging. This extremely wet, muddy ground prevented Duke Energy repair vehicles from accessing the area for repair efforts. In order to install new towers in the shortest timeframe, helicopters were employed to bring in new steel towers.

Building a New Maintenance Road

Accessing the lines for maintenance would require a stronger roadway to support heavy vehicles in the wettest areas. Duke Energy turned to local materials supplier, R.H. Moore & Associates for a solution that could get roads operational in short order and perform in the saturated conditions—**The GEOWEB® 3D system and Mirafi RS580i geotextile proved the ideal solution.**

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Downed Transmission Towers
Duke Energy Photo Credit

Black Hawk Helicopters Transport New Towers
Duke Energy Photo Credit

Wet Areas around Newly Placed Tower Poles

Constructing Towers & Access Roadways

Bringing in New Transmission Towers:
The downed towers were damaged beyond repair and would be replaced by stronger steel poles. Because of the remote location, extremely saturated ground and difficulty in accessing these lines, the towers, weighing 8,000 to 25,000 pounds, were set by a fleet of Black Hawk helicopters. Crews on the ground installed the towers which were transported in two to five parts and reassembled onsite.

Restoring Critical Power:
Between the terrain, scope of damage and demand for supplies following the storm, re-building this critical transmission line was a challenge. Transmission towers carry large amounts of power from power plants to the grid and are some of the grid's largest and sturdiest pieces of equipment. Despite their size, Hurricane Michael was able to destroy them, causing 75,000 outages.

Duke Energy crews worked long hours for more than three weeks to rebuild the grid and restore power.

Building the Maintenance Road:
For the wettest portions of the road crossing through wetlands, a combination of the Presto GEOWEB® system and Mirafi RS580i geotextile proved the perfect solution to support maintenance vehicles.

Presto's **GEOWEB® 3D soil stabilization system** keeps aggregate fill contained for a stable driving surface. The system was fast to deploy and install with local crews. Weather-resistant, ATRA® Key connectors were used to join GEOWEB® panels.

The **Mirafi RS580i woven geotextile** is an enhanced separation and reinforcement underlayment that offers high strength and performance in extremely soft subgrades.

Support for Wetland Roadways and Pole Pads

The GEOWEB® 3D system is placed over an enhanced geotextile and filled with crushed aggregate for access roads across critical wetlands areas and for stabilizing pole pads.

The roads and pads are permanent.

Project information & photos courtesy of Duke Energy and R.H. Moore & Associates.

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