

GEOWEB®

CANAL SHORELINE STABILIZATION

OWNER:

Town of Miami Lakes
Miami Lakes, FL

PROJECT ENGINEER:

ADA Engineering Inc.

CONTRACTOR:

ENCO, LLC

MATERIAL SUPPLIER:

R.H. Moore & Associates
Tampa, FL



MIAMI LAKES

Miami Lakes, Florida



Before Repair

EROSION PROTECTION FOR STORM WATER CANAL EMBANKMENTS

**Eroded Canals Caused by Years of Storm
Related Water Fluctuations Required Repair.**

PROJECT BACKGROUND

South Florida is notorious for storms and hurricanes that dump large amounts of water on communities over short periods of time. These storm events cause fast rise and fall of water levels on storm water canals causing topsoil loss and severe erosion issues on the canal embankments.

The Town of Miami Lakes, Florida, a South Florida community, had been experiencing severe erosion of their storm water canals throughout the town for many years. Storm surges and the rapid water fluctuations during storm events caused rotational failure of the embankments. Soil had sloughed off along the water's edge, impeding flow and decreasing capacity within the canals. The town of Miami Lakes contacted ADA Engineering Inc. for a solution.

SEVERE EROSION OF CANAL EMBANKMENTS

The rapid rise and fall of the water levels in the town's storm water canals over many years had caused erosion of the canal embankments. Attributed mainly to hurricanes that have crossed South Florida, water surges had taxed the storm water canal systems and caused soil sloughing along the water's edge that had impeded flow and decreased capacity within the canals.

THE GEOWEB SOLUTION:

Embankment Stability, Natural Aesthetics

After evaluating flow rates, ADA Engineering designed a solution to protect the embankments from future storm damage with the Presto GEOWEB Channel Protection System. The versatile GEOWEB geocell confinement system was chosen due to its ease of installation and ability to be filled with different materials in a stacked wall configuration on the embankments.

The GEOWEB system's flexible nature allowed for conformance to the many curves and turns in the channels. The GEOWEB wall sections below the water line were filled with rock. Soil and vegetation were installed above the water line to allow for natural aesthetics. Green wall fascia panels were chosen for aesthetic appeal and blending with the vegetation. **Over 12,000 Face Sq Ft. of the GEOWEB channel protection system was installed.**

Structurally-Sound, Natural Embankments



Ideas that will work for your Project?



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