

PROJECT PROFILE



Project Basics

Project Name: Task Force Hope- New Orleans Levee Armoring
Installation Date: 2012-2018
Product Type: Western Excelsior Xtreme Armor System™ (XAS) utilizing PP5-Xtreme with Percussion Driven Anchors (PDAs)
Project Location: New Orleans, Louisiana

Project Overview

After the devastation from Hurricane Katrina, the Army Corp of Engineers (ACOE) began the task of strengthening over 133-miles of perimeter levees surrounding New Orleans. In 2011 the ACOE conducted an extensive evaluation of high-performance turf reinforcement mat (HPTRM) performance for levee armoring. The goal of the evaluation was to verify armoring systems ability to handle different overtopping events due to extreme weather scenarios and secondarily the ability of the HPTRM to establish grass and allow for vegetation maintenance. From this evaluation, The Western Excelsior XAS system one of only a few systems to pass.

Project Site Installation

Since its approval for use on ACOE levee projects, the XAS system has been used on many sections of levee repair and reconstruction. The typical installation includes PP5-Xtreme HPTRM extending over the crown and down the side of the prepared levee. To secure the HPTRM, high-strength PDAs were installed restraining and reinforcing the hillside. The anchors selected ensure a high level of performance for the levee to withstand hurricane type forces but also allow for tractor maintenance. To establish vegetation, soil infill and sod are lain over the secured HPTRM. The dimensionality of the PP5-Xtreme matting allows for vegetation root and stem reinforcement, resulting in a high-strength soft-armored system for levee protection.

Performance

To date, nearly 1 million square yards of Xtreme Armor System have been installed in the greater New Orleans area for levee protection through the ACOE. The ability to install and reinforce levees using a soft, green armored system offers protection for the surrounding areas for up to 500-year storm surge events, and has saved taxpayers millions of dollars compared to traditional hard-armoring solutions.



Meticulous installation of the Xtreme Armor System on the levee slope (top). The HPTRM was installed with PDAs along a high-impact curved levee face (middle). Sod installed over the XAS was established and ready for maintenance activities within 60 days of installation (bottom).

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Western Green
4609 E. Boonville-New Harmony Rd., Evansville, IN 47725
(866) 540-9810 | www.westernexcelsior.com

