PROJECT PROFILE

Project Basics

Project Name: AKDOT Overpass Agency: Alaska Deptartment of Transportation Installation Date:

Product Type: Western Excelsior Xtreme Armor System[™] (XAS) utilizing PP5-Xtreme with Percussion Driven Anchors (PDAs)

Project Overview

The Alaska Department of Transportation sought out a design to armor the steep exposed slopes of a road overpass. The slopes had the potential for internal water seepage, and increased risk for shallow plane failures. The Xtreme Armor System (XAS) was selected to reinforce the slopes due to the advantageous properties of the XAS. Once in place, the XAS would help hold back surface soils and support permanent vegetation establishment.

Installation

The High-Performance Turf Reinforcement Mat (HPTRM) was installed along the steep slopes with a small anchor trench used at the slope crest to help anchor the leading edge and to prevent undermining of the system from the road runoff. Once in place, the HPTRM was secured by PDAs. Together the HPTRM and PDAs form a system that offers strength and support for the slope. To start the establishment of vegetation the XAS was infilled with seed and hydraulic mulch. Incorporating the mulch and seed into the XAS allowed for the easiest method to seed the steep slopes.

Performance

The Xtreme Armor System has met or exceeded all expectation for the system. Within weeks, the reinforced slopes started to vegetate and a stable design was achieved during the short summer growing season of Alaska. The XAS offered a cost-effective, green alternative to a project that otherwise would have needed a hard armor approach.









The steep overpass slopes prior to stabilization (top), The installation of the XAS using PDAs (middle), and the finished slope 30 days after hydromulching (bottom).



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