

GEOWEB® Slope Protection System

Design Engineering Resource Package



SLOPE STABILIZATION



Design Resources

TABLE OF CONTENTS

Learn About GEOWEB® Slope Protection

Watch Erosion Control Webcast

Environmental Aspects Green Sheet

Create a Specification

CAD Details for your Plans

Watch Videos

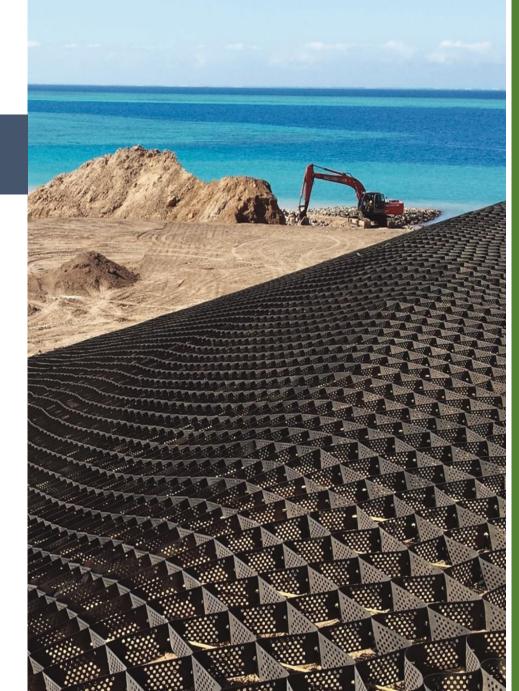
Get a Free Project Evaluation

Evaluate Technical Data

Complete Solution Accessories

See Markets & Industries

Get a Material Estimate



GEOWEB® Slope Protection System

DESIGN HIGH-PERFORMANCE EMBANKMENTS

Design stable slopes for challenging landscapes. Protect erosion prone slopes from concentrated runoff and erosive soils. Build steeper slopes & create more buildable space with 3D confined fill. Sustainably vegetated, hard-armored, and protection to impervious liners.

This engineering design package will equip you with tools & resources to design higher-performing embankments..



Learn About GEOWEB Slope Protection

See how the System Works

Learn how the GEOWEB 3D Stabilization System works—and how it can work for your project.

- Overview Brochure
- <u>Visit our Photo Gallery</u>
- <u>See Project Case Studies</u>



Design Resources for your project

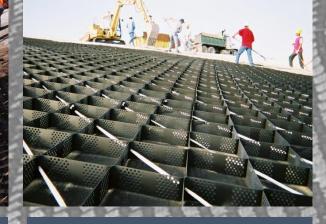


Design Resources for your project

Slope Protection Infill Options







CONCRETE SLOPES SECONEMBRANE PROTECTION

VEGETATED SLOPES





View recorded webcast and earn PDH credits.

WEBCAST

Protect Slopes Against Forces of Nature>>

Causes of Soil Erosion



- Water
- Sheet Runoff
- Piping/Seepage
- Shoreline/Wave Action
- Mass movement
- Unexpected loading
- Wind
- Misapplied ECB/TRM





Environmental Benefits

Download the Green Sheet >>

GEOWEB[®] projects for slopes & shorelines offer lower environmental impact than alternative solutions.









Water Benefit

e Savings Land Use

Resource Savings

Energy Use Re

PRESTOGEOSYSTEMSTechnology Roots

Design Resources for your project

Development of 3D Geocells

Presto developed 3D geocells nearly 4 decades ago with the US Army Corps of Engineers. The original application was to provide fast access roads across dry sand beaches.

Since then, Presto has catapulted the geocellular technology into new landscapes, applications and markets.

The GEOWEB® system is the original—and most advanced geocell on the market.

Learn about development of geocells >>



PRESTOGEOSYSTEMSCreate a Specification

Fast & Easy Specification Tools

Create your own custom specification or use industry-standard specifications from ARCAT.com and CADdetails.com

SPECMaker® Tool

<u>Create a Custom CSI Spec in Minutes</u> <u>CSI Specification (Word doc)</u> <u>Specification Summary</u>

Industry Specifications

ARCAT CADDetails





PRESTOGEOSYSTEMSCAD Detail Drawings

Cross-Section Drawings

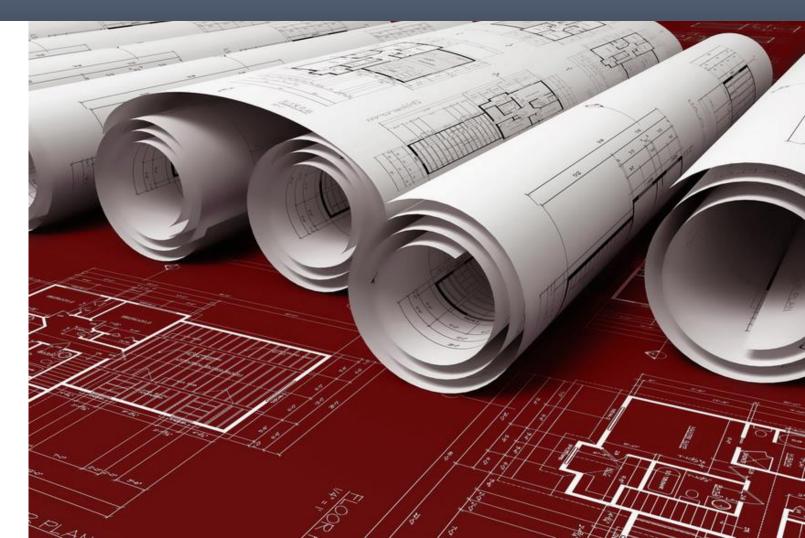
Find all the drawing details you need to include in your contract documents.

Geoweb Channel Details

CAD Drawings

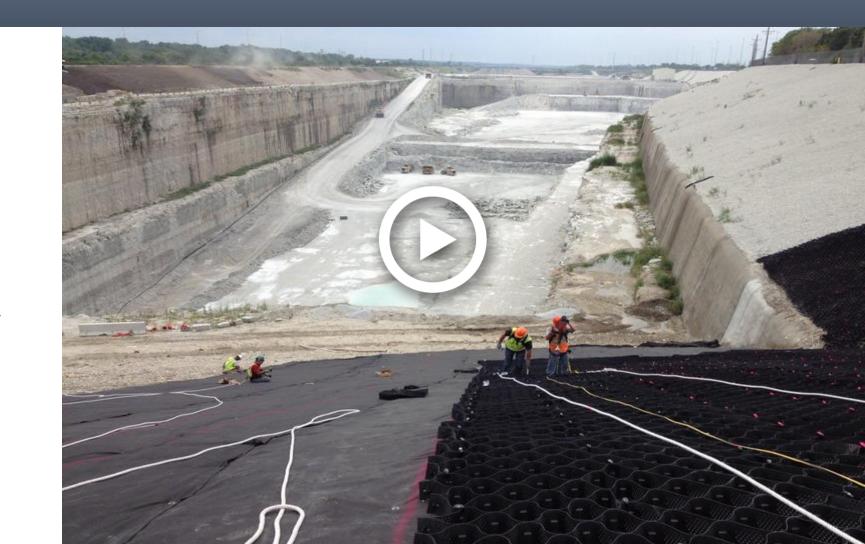
Industry CAD Details ARCAT CADDetails





PRESTOGEOSYSTEMSWatchVideos

Design Resources for your project



<u>Visit our Video Gallery >></u>

See Product in Action



......

<u>Watch Cross-Section Animation>></u>

Simple Installation Animations

GEOWEB Slopes with Anchors Video >>

<u>GEOWEB Slopes with Tendons & Tendon</u> <u>Clips Video >></u>

Project Video See Slope Stabilization at McCook Quarry>>

PRESTOGEOSYSTEMSFree Project Evaluation

Design Resources for your project

Assistance with Your Design

We can provide design support for your project. Take advantage of our technology experience and let us perform a free evaluation for your GEOWEB® project.

<u>Request Free Project Evaluation >></u> (online form)

Download the Request Form >> (Word fill form)



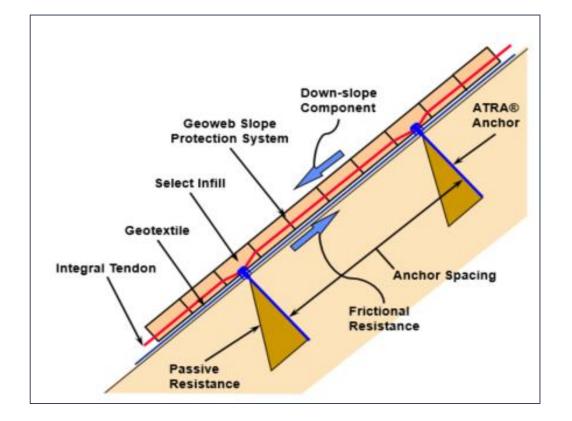
PRESTOGEOSYSTEMSTechnology Data

Evaluate how the 3D Confinement Technology Works

Learn about the technical details, and design considerations and methods of GEOWEB confinement.

Read Comprehensive Technical Overview >>







PRESTOGEOSYSTEMSSystem Accessories

Fully Integrated for Performance

Ensure your project performs under any condition.

GEOWEB® projects may be designed with connection and anchoring components for a 'complete system' solution.

- Weather-resistant, 3X stronger ATRA® connection keys.
- Corrosion- and weather-resistant ATRA® anchors.
- Tendons and ATRA® Tendon Clip load transfer.
- Fast anchor driving tools.

See How the System Components Work













Transforming Markets & Industries

Learn how the GEOWEB® 3D soil confinement system's versatility and capabilities will benefit your project's performance in a wide range of applications and industries.





Embankment Protection

Dams

Earthen & Hard-Armored

- Design earthen dam embankments to resist erosion and sloughing caused by sheet flow and overtopping.
- Protect impervious liners from UV degradation and puncture.









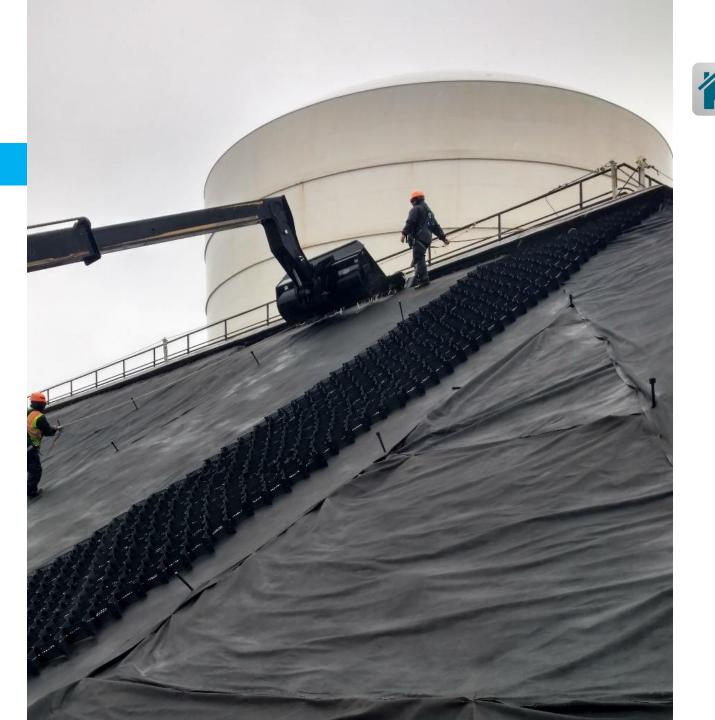
Spill Containment & Management

Containment

- Design protective barriers around containment tanks to capture potential spill material and prevent leakage of hazardous liquids into the environment.
- Durable HDPE GEOWEB material resists saline and corrosive environments.





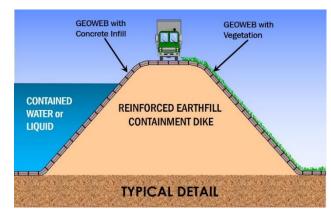




Flood Control Embankment

Dikes & Levees

- Design earthen and hard-armored barriers through waterways to control water flow and prevent flooding onto adjoining land.
- Create drivable surface for inspection and maintenance vehicle access.







PRESTO GEOSYSTEMS[®]

Geomembrane Cover Protection

Landfills

- Design protective covers for landfill liners at the time of closure to resist UV degradation and puncture.
- Support naturally-sustainable vegetation on steep slopes to resist sliding potential.
- Integrated tendon system supports GEOWEB cover system without stake anchors.









Geomembrane Protection

Ponds

Stormwater/Wastewater

- Design stable embankments for stormwater and process ponds.
- Protect impervious liners from UV degradation and puncture.
- Build in access ramps to support loading of maintenance equipment.









Embankment Protection

Shorelines

- Design stable shorelines to minimize erosion and resist high water contact.
- Create naturally-vegetated embankments with a GEOWEB/TRM overlayment in place of gabions or concrete revetments.









Slope Stabilization & Erosion Control

Road Embankments

- Design steeper road embankments (45° and higher) to resist erosion from surface runoff and sheet flow.
- Create sustainable, naturallyvegetated slopes that infiltrate stormwater.
- Meet Low Impact Development (LID) and Green Infrastructure (GI) design goals.





PRESTO GEOSYSTEMS

Slope Stabilization & Pier Protection

Bridge Abutments

- Design stable embankments and protect bridge columns from potential erosion.
- Design steeper embankments (45° and higher) to resist erosion issues from surface runoff and sheet flow.
- Infill with permeable aggregate or concrete fill for low maintenance.







PRESTO GEOSYSTEMS* Pipeline & Slope Protection

Oil & Gas

- Design stable embankments for pipeline support or around oil & gas operations.
- Build low-maintenance slopes with aggregate or concrete fill.
- Easy deployment even to difficult site access locations.









Slope Reclamation

Mining Road Embankments & Cut Slopes

- Reclaim cut slopes from surface open pit mining with a naturally vegetated and sustainable solution.
- Solve soil erosion and slope-surface stability problems not possible with 2D planar systems.
- Limit stormwater runoff and environmental impacts.







Evaporation & Process Ponds

Mining Fluid Containment

- Design robust protection for geomembranes—the critical component in solution ponds, containment basins and tailings storage facilities.
- Versatile design offers compatibility with all geomembrane types.





PRESTO GEOSYSTEMS

Embankment Stabilization

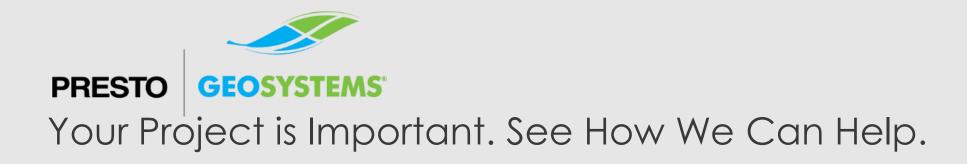
Railroad

- Design rail embankments adjacent to track to resist erosive forces--limit need for costly downtime for repair.
- Protect surface layer soils from slides and washouts with vegetation, aggregate or hard-armored concrete.







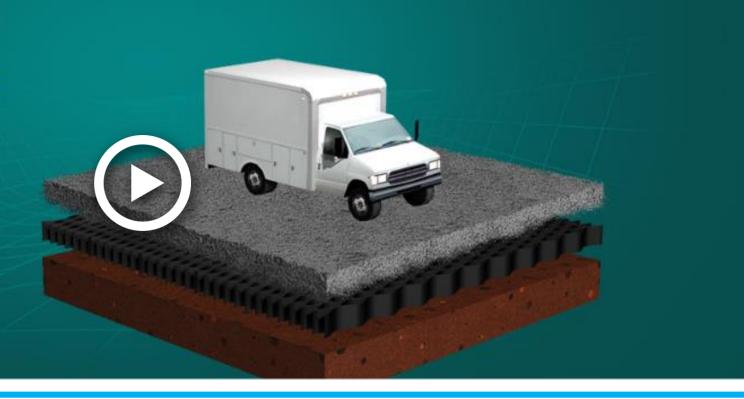




THE PRESTO ADVANTAGE

See how our advanced, adaptable geocells, porous pavers and mats put your project on track for success, and keeps your projects on time and on budget.

WATCH THE VIDEO



Customized Technical Presentations

Learn more about how the GEOWEB® 3D technology can work on your upcoming projects.

Learn & Earn PDH Credits.

SCHEDULE a Lunch & Learn Presentation >>



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Our global network of distributors and representatives will work with you to provide a price estimate.

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