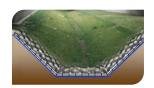


GEOWEB® 3D Vegetated Channels vs. Rip Rap or Gabions

1 Natural Green Aesthetics



- 2 Invisible Once Vegetated.
- 3 Flexible, Conforms to Landscape



4 Diverse Design Flexibility

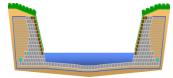




5 Made from Non-Corrosive Material



6 Will Not Settle Over Time.



7 Use Local Fill, Not Large Rocks



8 No Heavy Equipment.



1. Natural Green Aesthetics.

As a single layer on a slope with a TRM, or in stacked configuration, Geoweb vegetated channels are green solutions compared to rip rap or wire rock fascia gabions.

2. Invisible Once Vegetated.

The Geoweb system is essentially invisible once vegetation is established. The open-celled system infiltrates stormwater.

3. Flexible, Conforms to Landscape

Geoweb sections are flexible and conform well to hillsides and stream curves.

4. Diverse Design Flexibility.

Geoweb channels can be designed with a variety of infills to meet site conditions, including topsoil, aggregate or concrete. Gabion walls are infilled with large stones, and have limited design flexibility.

5. Made from Non-Corrosive Material.

HDPE Geoweb material does not corrode and is stable and inert, maintaining its strength for over 100 years.. Gabions are prone to corrosion, even if galvanized.

6. Keeps Strength, Accommodates Settlement.

Geoweb channels are flexible systems that maintain their strength even when confronted with differential settlement. Poured concrete, gabions, and other semi-rigid systems may fail over time due to settlement.

7. Use Local Fill, Not Large Rocks / Rip Rap.

Compared to rip rap and Gabions, Geoweb tiered channels may use locally available or on-site fill, saving on cost to transport larger rock and reducing impact to the neighborhood and the environment.

8. No Heavy Equipment Required.

Light-weight Geoweb sections are easy to transport, deploy and install. Gabions, rip rap, and poured concrete require large equipment.



1 Stable Surface Resists Erosion.



2 Allows Smaller, Less Expensive Aggregate



3 Allows On-Site Fill



4 Easier to Place than
Rip Rap



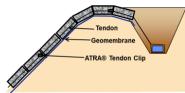
GEOWEB® 3D Aggregate Channels vs. Rip Rap



5 I-Slots for ATRA Components



6 Suspends Aggregate Over Liner Systems



7 Certainty of Performance Backed by Research



1. Stable Surface Resists Erosion.

Confined infill in the 3D Geoweb cellular structure is stable allowing it's use in higher velocity flow conditions, with increased resistance to erosion.

2. Allows Smaller, Less Expensive Aggregate.

Confinement in the Geoweb structure allows use of smaller, less expensive infill stone, reducing rock sizing up to 10 times while still delivering the same protection.

3. May Allow Use of On-Site, Waste Rock.

Allowing the use of locally available or on-site fill reduces the cost of procuring and hauling quality fill to the site. Allowing waste rock reduces need for disposal. Beneficial in remote or difficult access areas such as mining sites.

4. Easier to Place than Rip Rap.

The Geoweb system allows faster placement of infill compared to hauling and placing large rip rap.

5. I-Slots for ATRA Components.

I-Slots facilitate stronger design and faster installation devices. Join Geoweb sections with ATRA keys, thread tendon and transfer load from the Geoweb sections to tendons with ATRA tendon clips.

6. Suspends Aggregate Over Liner Systems.

Using tendons and ATRA® tendon clips, support a Geoweb solution over liners without puncturing the impermeable liner with stakes.

7. Performance Backed by Research.

Testing at Colorado State University verified that Geowebconfinement resulted in a 2-3 times improvement factor. Presto incorporates research-based thresholds in their modeling and evaluation tools.



1 Eliminates Forms & Reinforcement



2 No Joints, Controlled Cracking



3 Reduces Concrete, Consistent Depth



4 Perforations Create Cross-Linking



GEOWEB® 3D Concrete Channels vs. Poured-in-Place Channels and ACBs



5 Higher Slump Concrete



6 No Lifting Equipment

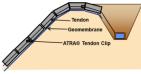




8 Withstands High Flows



9 Protects Geomembranes



1. Eliminates Forms and Reinforcement.

The Geoweb system acts as a support skeleton and needs no other forms for concrete infill.

2. No Joints, Controlled Cracking.

Small shrinkage gaps between the Geoweb cell wall and the cured concrete allow the system to flex, providing "controlled joints" at the cell wall perimeter. Typical large cracks with conventional concrete slabs are eliminated. as is typical with conventional concrete slabs.

3. Reduces Concrete, Assures Consistent Depth.

The Geoweb system reduces concrete depth by creating a secure, uniform mattress supported by the interconnected cells. Eliminate wasted concrete, or short pours as the Geoweb wall height assures defined concrete depth.

4. Perforations Create Cross-Linking.

Interlocking cells are formed as concrete "reaches" through the cell wall as the pour flows into place.

5. Allows Higher Slump Concrete.

The Geoweb cellular structure offers redundant "container" support for the concrete, allowing less expensive mixes and easier to pour higher slump concrete.

6. Light-Weight Geoweb Requires No Lifting Equipment.

Compared to ACB's, the Geoweb poured-in-place solution does not require special lifting equipment, saving on cost and time of installation.

7. Safer Worksite vs. ACBs.

No heavy Articulated Concrete Blocks (ACBs) system to place means less chance for injury and a safer worksite.

8. Withstands High Flows.

Backed by third party research, the Geoweb system can be designed to withstand up to 30 fps (9 mps).

9. Protects Geomembranes.

Using tendons and ATRA® tendon clips, support a Geoweb solution over impermeable liners without puncturing the liner with stakes.