

# GEOWEB® 3D Aggregate Channels vs. Rip Rap

**1 Stable Surface Resists Erosion.**



**2 Allows Smaller, Less Expensive Aggregate**



**3 Allows On-Site Fill**



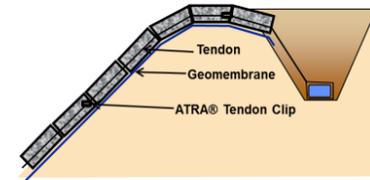
**4 Easier to Place than Rip Rap**



**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 Geoweb-confinement resulted in a 2-3 times improvement factor. Presto incorporates research-based thresholds in their modeling and evaluation tools.