

The Geosource **Technical Guide**

When to use a Green Geoweb Wall:

- Replace (or Enhance) Hard Armor
- When you have a failed slope
- When you cannot re-grade the slope to 3:1 or flatter
- When you have a preference to regain land at the top of the creek and need to add fill

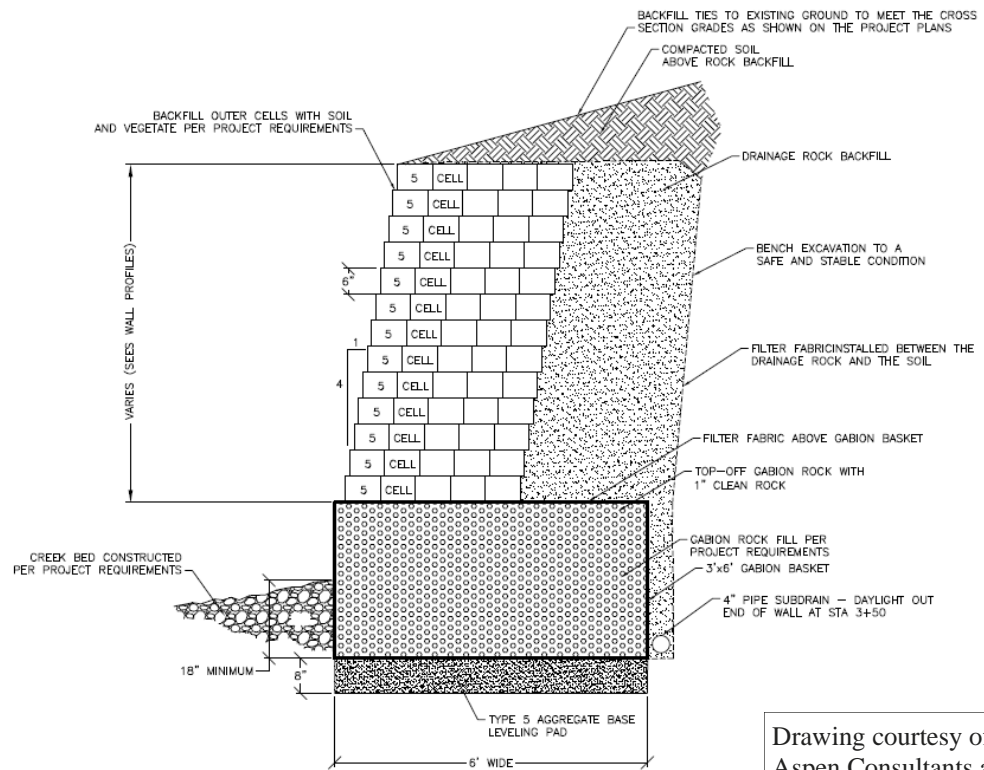
Why use a GGW:

- It is a vegetated solution
- The Vegetation provides habitat, shading for the water, energy dissipation and filtering
- It is structurally very strong
- It is an Engineered Solution with bioengineering

Green Geoweb Mass Gravity Wall

The Geoweb system is a flexible, three-dimensional cellular confinement system, formed with surface-textured strips of polyethylene. The individual strips are inter-connected by a series of offset, full-depth, ultrasonically welded seams. When expanded, the strips form the walls of an integrated cellular (honeycomb) structure into which selected fill materials are placed and compacted. The confining cell structure imparts an *effective cohesion* to the infill material, thereby increasing its *shear strength* and *stiffness*. Consequently, a very efficient soil matrix is created by using the Geoweb cellular confinement system and granular soil infills. The large frictional resistance between infilled layers permits stacking subsequent layers of Geoweb sections to create a composite structure that behaves as a monolithic gravity mass, which is flexible enough to conform to variable foundation conditions. This frictional resistance allows Geoweb sections to be used either as a self-contained gravity retaining wall or as a narrow, uniform fascia system for soil-reinforced retaining walls.

For added durability and stability in a creek application, a twisted wire mesh gabion basket is used as a foundation and anti-scour layer. This confined rock component insures stability from both hydraulic impact and a solid frame work to build the cellular wall on.



SLOPE PROTECTION WALL 3 DETAIL
NOT TO SCALE

Drawing courtesy of Aspen Consultants and Ed Austin, P.E.

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Completed Projects

Components

Presto Geoweb

- 6" thick Geoweb wall panels with tan face

PVC Coated Gabion

- 6' wide by 3' Tall PVC coated gabions
- Gabions connected with ring fastener system

Erosion Control Blanket

- 3 year long term temporary ECB-C125 by North American Green
- Turf Reinforcement Mat

Vegetation

- Turf Reinforcement Mat
Native vegetation in the cells to include native seed mix and native plant plugs. Mycorrhiza and Micronutrient fertilizer packs to be placed in each cell

