

Gabion Wall Construction Process

Wire baskets arrive to the site folded flat. They are assembled on site using lacing wire and hog-rings to form large modular containers for the rock in-fill.



Figure 1. Crews review the material delivery and wall plans, and begin assembly.

Rock products are quarried nearby, from the same geological layer as the bluff limestone on site. Only durable rocks crushed into specific sizes can be used.



Figure 2. The first course of baskets are set in place and ready to fill with rock.

The baskets are filled uniformly in small lifts. Workers prevent deformations by using wire ties, and pry-and-tie edges to keep the baskets in straight courses.



Figure 3. Building a level and stable gabion wall requires care, and a lot of wire.

Once filled with rock, the individual baskets are kept in place by the wire ties, interlock between rocks, and the weight of the connected system.



Figure 4. Rock-filling nears the end; crews begin placing a 2nd layer of baskets.

The final gabion wall system can withstand an enormous amount of impact by absorbing the energy and distributing it across a large and flexible volume. This characteristic makes the gabion wall capable of protecting the road from future rock fall events, as the river bluff naturally recedes.



Figure 5. Creation and recession of the river bluff is a geologic process.