

Preventing erosion and flooding at Witton Gilbert



SuDS drainage channel

Preventing erosion and flooding naturally.

Witton Gilbert is located within a residential area. The scheme required a combination of erosion protection to the channel to prevent blockage of the downstream culvert due to deposited scoured material and also extra flood storage capacity to prevent surcharging of the downstream culvert during the higher order events.

The existing stream was to be retained and to flow and look as natural as possible whilst being robust enough to resist high flows and turbulence.

To accommodate the high velocities, sections of the channel were to be gabion mattress with gabion sides. The channel also included sloping sections at 1 in 5 which were to be constructed from stone pitched slopes and a gabion step cascade.

Products Used

- **Rock Rolls**
- **Rock Mattresses**



The low flow channel naturalising

Erosion control measures

Following issues with construction and in the interest of reducing cost it was decided to redesign these structures from stone pitching and gabion cascades to Rock Rolls and Rock Mattress equivalents.

Adrian Hill of AECOM commented that the Rock Rolls and Rock Mattress were **more aesthetic than the original proposal** and that this system is more in keeping with current thinking.

On completion, Stephen Bromley, Hall Construction's Business Development Manager stated the project team considered that benefits included:

- **Reduced production and installation time on site**
- **Quality products**
- **Would use Salix again on similar schemes**



The cascading channel lined with the Rock Rolls and Rock Mattresses are delivered to site ready filled, lifted off the lorry and lowered into place on the prepared graded profile.

