

CASE STUDY

Rock Mattress Channel Lining maximises land value in Colmslie



Perrin Creek flows into the Brisbane River at Colmslie, Brisbane. The creek bisects a large industrial and commercial precinct next to the river.

Realigning Perrin Creek

To enable adjacent industrial land to be developed, Perrin Creek had to be realigned, and formed into a 20m wide trapezoidal channel. The much wider channel, and subsequent drop in flow velocities provided bank stabilization and flood mitigation.

To achieve these goals, Concrib installed approximately 7,000m² of rock-mattresses (supplied by Maccaferri) on behalf of the head contractor, McIlwain Civil. The project took approximately 8 weeks to complete at a cost of \$600,000.

Tides create a challenge

The creek is tidal, which meant that prefilled mattress units had to be lifted into place in areas where bunding and dewatering was not possible. A 100 tonne crane was used to lift the 6-tonne filled mattresses into place at a 32m radius.

Safety is paramount

A full time Safety Officer was employed during crane-operation due to the proximity of high-tension power lines crossing the site.

Limited access, no problem for Concrib team

In the bunded area, access was only possible from one side of the creek. The Concrib team used an innovative rock-fill placement method using a “telebelt” materials handler, with a reach of 32m, to drop the rock directly into the mattress cells.

Restoring the balance and beauty of the environment

Over time, the creek will take on a natural appearance with the establishment of native vegetation. This will be assisted by the planting of thousands of mangroves in pre-installed tubes within the mattresses.

Need a rock-mattress or gabion design?

Talk to the experts at Concrib. We have the knowledge and experience to tackle a variety of earth stabilisation, and construction projects.

Please contact us on (07) 3375 1800, or visit our website at www.concrib.com.au to see more examples of our work.