

# CASE STUDY

## TEMPORARY ROAD BRIDGE SUPPORT THE GULF OF CARPENTARIA, NORTH QUEENSLAND

PLATIPUS MECHANICAL EARTH ANCHORING SYSTEM



|             |   |
|-------------|---|
| CONTRACTOR  | SMITHBRIDGE GROUP PTY LTD                                 |
| ENGINEER    | FSA Consulting Engineers                                  |
| CLIENT      | Queensland Department of Transport & Main Roads           |
| LOCATION    | Beames Brooke, the Gulf of Carpentaria, North Queensland  |
| SYSTEM USED | Platipus Earth Anchoring System – Temporary Stabilisation |

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GEOSYNTHETIC  
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### The Project

- The project was at Beames Brooke located 25km South West of Burketown in the Gulf of Carpentaria, North Queensland.
- The project consisted of the stabilisation of the two new concrete bridge abutments prior to the replacement of a temporary road bridge.

### Design Input and Site Constraints

- Remote location with limited options for transportation of plant and materials.
- Condensed construction timeframe for temporary works.
- Design loading to include cyclonic weather conditions and extreme flooding events.

### Design Solution

FSA Consulting Engineers and Cirtex Australia worked together in consultation with the contractor Smithbridge to develop the preferred design solution:-

- A total of 16 no. Platipus B8 Anchor Systems were driven 5m to achieve Working Loads of 150kN.
- Cirtex Australia supplied the Platipus B8 Anchor System, installation equipment and technical advice and support.
- FSA Consulting Engineers provided design development to required codes and structural certification.

### Outcomes of Design Solution

The outcomes of the implementation of the Platipus B8 Anchor System were:-

- 'Buildability' & ease of installation in a remote location.
- The Platipus Anchor Systems were reliable and relatively quick to drive, minimising construction time for temporary works on site.
- Anchors provided a cost saving over traditional concrete and piling solutions.

