

## Rewa Bridge, Fiji

### Client

Fletcher Construction, South Pacific.

### Project

The Rewa Bridge project was a design-build contract undertaken for the Government of Fiji Public Works Department which involved the construction of a 425 m long, four-lane bridge in Nausori, Fiji. Abutment and pier foundations consisted of 204 no. 610 mm diameter steel tube piles driven to depths of 50 m.

### Services provided

- Geotechnical design
- Liquefaction assessment
- Pile load testing
- Geotechnical construction review.

### Value

FJD \$34 M

### When

Awarded: October 2003

Completed: August 2006.

### Challenges

The bridge site is situated on the western fringes of a large deeply eroded river valley, with the depth to rock ranging from 13 m at the western abutment to 80 m at the eastern abutment. Our company developed an alternative foundation design in conjunction with Fletcher Construction which involved the use of driven steel tube piles in place of bored cast in-situ concrete piles. The geotechnical design challenges included use of both end bearing and friction piles, liquefiable sands beneath the abutments and full scale pile load testing. The project was the recipient of an ACENZ Gold Merit award in 2007.



[www.tonkin.co.nz](http://www.tonkin.co.nz)