



Route des Tamarins "Grande Ravine" viaduct

Civil Engineering Structures

2002 - 2009



FRANCE -
La Réunion

Client

REGION REUNION

Project manager

SETEC TPI / TERRASOL

Project owner

Region: Ile de la Reunion

Architect

A. Spielmann

Miscellaneous

Deck length: 288 m,
Spans: 73 / 140 / 73 m,
Shaft + bridge abutment
depth: 40 m,
Shaft diameter: 10 m



Description of the project

The Grande Ravine viaduct is one of the four exceptional structures along the Route des Tamarins, between the towns of Saint Paul and l'Etang Salé.

The SETEC TPI / SPIELMANN group was awarded the full project management for the design and construction of this spectacular engineering structure (crossing a 320 m wide and 170 m deep breccia).

Description of the mission

This group entrusted TERRASOL with the design of the foundations and the monitoring of the earthworks, within a delicate geotechnical context (breccia slopes made of alternating metric beds of basalt and medium grade scoria). The foundations of the supports include a 10 m diameter shaft embedded over 20 m height in the slope, connected to a counterweight bridge abutment.

The earthworks for the bridge abutments and shafts were performed between August 2006 and June 2007. The final junction was made on October 28th 2008.

This principle of foundation, validated using 3D finite element calculations, allowed obtaining displacements of the bridge abutments smaller than one centimeter during the deck sliding phases.

terrasol

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