



Rueil Malmaison, 9 July 2009

Press release

**François Fillon inaugurates the Grande Ravine viaduct built by VINCI in Reunion,
in the presence of Yves Thibault de Silguy, Chairman**

At 288 metres long, the Grande Ravine viaduct is a technical feat since it links two rocky peaks at very high altitude across a chasm of impressive dimensions, almost 300 metres wide and 170 metres deep. The viaduct, made of steel and concrete, is one of four outstanding structures on the Tamarin Road, built along a hillside on the west coast of Reunion Island.

The viaduct's architecture and techniques chosen to build it were dictated both by the nature of the terrain (very steep slopes making piers in the ravine impossible) and for environmental reasons (protected flora and fauna). The design is therefore a light, uncluttered deck, like a fine blade supported by two arms coming out of the sides of the ravine: the braces.

The structure has also been subjected to severe weather conditions: it has been designed to withstand hurricane winds of up to 270 kph, a model of the bridge having been tested in a wind tunnel. The deck is equipped with anemometers and accelerometers for full-scale monitoring of the behaviour of the structure in the wind.

After three years of works, the Grande Ravine viaduct was opened to the public on 23 June 2009.



The Grande Ravine viaduct in figures:

- **Deck:** 288 metres long, 23 metres wide, 4 metres high, 3,500 tonnes of steel.
- **Braces:** 50 metres long, 1,600 cu. metres of concrete.
- **Abutments:** 45 metres high, of which 20 metres of well foundations, 14,000 cu. metres of concrete in total.
- **Counterweights:** 6,600 tonnes of ballast on each bank.
- **Earthworks:** 48,000 cu. metres of backfill for the well foundations and abutments.
- **Value of works contract:** €46,000,000 (incl. tax).
- **Duration of works:** 3 years (April 2006–March 2009).
- **Concrete:** 15,000 cu. metres.
- **Steel:** 2,500 tonnes (reinforcement) and 210 tonnes (prestressing).
- **Metal frame heads:** 3,500 tonnes.

The main players:

- **Architect:** Alain Spielmann
- **Owner:** Reunion Regional Council
- **Project manager:** Setec TPI
- **Construction and execution studies:** Bureau Greisch (general studies, metal); Tremblet S.A. (civil engineering)
- **Consortium leader:** Dodin Campenon Bernard (VINCI)

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