



# Chacao Channel Bridge

Chacao Channel, Chile / 2001

Structural type  
Characteristics  
Client  
Scope

suspension bridge  
two-span suspension bridge with 1100 m and 1055 m spans  
MOP, República de Chile  
tender design



The Bridge over the Chacao Channel will constitute a permanent connection between the Great Isle of Chilioé and the continent, in the 10th Region of Chile, some 1,000 km to the South of its capital, Santiago de Chile. FHECOR Consulting Engineers, in its function as structural experts, has taken part in the two stages of this project (Feasibility study and Tender Project) developed up to now.

The proposed solution is a suspension bridge of two spans of 1,100.00m and 1,055.00m with a width of 19.80m. Its pylons are made of reinforced concrete. The foundations of the northern pier were laid under water at a depth of about 20m, the intermediate pylon on a submerged island near the centre of the Channel whilst the southern pier's foundations rest directly on the Isle of Chilioé.

One of the most demanding conditions of the project is its location, which lies within a seismic area close to the place where the strongest earthquake ever registered - maximum ground acceleration of 0,4 g - has taken place. Another less favorable aspect, to be taken into account in the definition of the construction procedures, is the strong water currents caused by the changing tides, which may reach speeds of up to 5.00 m per second.



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