

## Bridge over the Chacao Channel

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.



### Chile /2001 Project data

Structural type:  
Two-span suspension bridge of  
1,100.00m and 1,055.00m spans  
Location:  
Chacao Channel. Region10.  
The Republic of Chile  
Completion date:  
September 2001  
Proprietor:  
Ministry of Public Works.  
The Republic of Chile  
Project:  
Ingeniería Cuatro, COWI,  
FHECOR Consulting Engineers  
Scope of Works:  
Tender Project and Feasibility Study