

Ringvaart Aqueduct



Main Client

Ministry of Transport

Client

BAM Civiel

Type of Contract

Design & Construct

Completion

2012 (construction)

Location

Roelofarendsveen, the Netherlands

Construction Costs

Euro 40 million

Consultancy Fees

Category 4 (see page 2)

Scope

Aqueduct including access ramps and temporary works

Services

Tender Design
Detailed Design

The capacity and dimensions of the existing Ringvaart Aqueduct in the A4 motorway which was built in 1958 are inadequate for modern demands. The Ministry of Transport has awarded BAM Civiel a design and construct contract to build a new aqueduct next to the existing one, as part of a larger contract to increase the capacity of the A4 motorway. Delta Marine Consultants has prepared the Tender Design and Detailed Design for the new aqueduct in the Ringvaart.



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Project Description

The new aqueduct has a width of 26 m. When it is finished the 2x2 traffic lanes of the A4 will temporarily be transferred to the new aqueduct while the old one is refurbished to accommodate 3 southbound lanes and emergency lane. The new aqueduct will only be used for the northbound lanes. The width is sufficient for a fourth lane in future.

A critical aspect for the design is the proximity of old aqueduct. Small horizontal movement might cause leaking of the old joints. Also the angle at which the A4 crosses the Ringvaart results in an irregular cofferdam which has a tendency to distort. Last but not least the Haarlemmermeer in which Schiphol Airport is located is several meters below the waterlevel of the Ringvaart. Special redundant safety measures had to be incorporated in the design.

