

# The Maputo-Catembe Bridge: 'the longest suspension bridge in Africa'

World Construction Network/Construction Intelligence Center



The longest suspension bridge in Africa, according to Cowi and Gauff Engineering, is currently under construction in Mozambique and will link the capital city of Maputo with the Catembe district.

The \$725M bridge is part of the Maputo Bridge and Link Roads project funded by the Export-Import Bank of China and the Mozambique government. The project is being implemented by the Empresa de Desenvolvimento de Maputo Sul (EDMS), a government body set up to develop a number of key infrastructure projects centred around the city of Maputo.

China Roads and Bridges Corporation (CRBC) has been appointed by EDMS as the project's EPC contractor, whilst the German consultancy firm Gauff Engineering is responsible for the design evaluation, construction supervision and quality control of the project and Cowi was appointed as the project's technical advisor. The construction of the bridge and link roads is expected to be complete in 2017.

During the construction of the bridge and links roads, the local population will benefit from the creation of nearly 3000 jobs.

## **Africa's longest suspension bridge**

Currently, travelling between Maputo and Catembe can be done by taking a 40-60min trip across the Maputo Bay on the limited and ageing ferry services available. The other option is to drive around the bay, a journey that takes at least 3h due to the very poor condition of the roads. The new bridge, when completed, will cut travel times considerably.

The 3Km Maputo-Catembe Bridge will consist in a 1230m precast concrete element on the south approach, a 1100m cantilever bridge on the north approach and a 680m suspension bridge, to be built 60m above the Maputo Bay to ensure that ships can pass underneath it on their way in and out of the International Port of Maputo.

Chinese steelmaker Angang Steel Co. (Ansteel) will be supplying the steel for the bridge, including 8,000t of steel for the box girder section of the main part of the bridge.

The suspension bridge has two 137m concrete towers, each one to be built on 24, up to 100m deep concrete pile foundations with a diameter of 2.2m.

Fly ash is being used in the manufacture of concrete for the project, as the structure is expected to be durable for at least 100 years.



The 3km Maputo-Catembe Bridge is currently under construction.

### **The linking roads**

In addition to the construction of the bridge, the project also includes the construction of two main roads. The first road, measuring 120Km, will link Catembe to Ponta do Ouro, a popular holiday destination near the South African border. The second road, measuring 65Km, will link Bela Vista, located halfway between Catembe and Ponta do Ouro, to Boane. Five existing bridges crossing the rivers Tembe, Changane, Mahubo, Boane and Umbeluzi will be rehabilitated as part of the project.

This new road infrastructure will link the north to the south and the east to the west

of the country and create a connection with Swaziland and South Africa. It will play a key role in the planned urbanisation of the Catembe district, as it will give a boost to the national and international trade and open up new areas for the tourism industry, such as the Maputo Special Reserve and the Ponta do Ouro area, thus creating employment and contributing to the socio economic growth of the country.

### **Catembe district urbanisation project**

Despite its proximity to the capital city of Maputo, the Catembe district has remained a largely undeveloped area. This is about to change as the construction of the new bridge will bring out this region, with untapped potential, from its isolation. Spotting this tremendous opportunity, private companies in partnership with the government have developed a plan for the urbanisation of the district.

The Catembe urbanisation masterplan consists in the creation of 13 separate units over 10,000ha of land divided into residential, commercial, industrial, logistical, tourism, and green areas. This will give rise, from scratch, to a new modern sustainable and comprehensive city thus relieving the mounting pressure on the city of Maputo, which suffers from overpopulation and uncontrolled urban growth.

The city will be built in phases over a period of 30 years and will be home to about 400,000 inhabitants. Priority will be given to the construction of two main residential areas followed by the touristic and industrial areas, which will be developed simultaneously. The development of the rest of the city will advance in line with the population and urban growth in the region.

\* Images courtesy of Gauff Engineering.

\* Visit the [Construction Intelligence Center](#) for more information on the construction industry.