

Bonny River Suspension Bridge

CLIENT: Niger Delta Development Commission

LOCATION: Nigeria

YEAR OF COMPLETION: 2009

The Government of Nigeria planned to construct a 600km highway along the coast of the Niger Delta and appointed Pearl Consultant as consultant for the scheme. Pearl Consultants appointed us to undertake the design of this major river crossing which carries the new highway across the mouth of the Bonny River.

We undertook the initial studies, concept and detailed design of this 1500m main span steel box girder suspension bridge and the approach viaducts, which carry the highway over the mangrove swamp areas, either side of the river.

The suspension bridge has 240m high concrete towers with two main suspension cables supporting hangers at 20m spacing arranged down each side of the steel box girder deck. The approach viaducts on either side are prestressed concrete box girder construction with 100m typical span lengths and an overall length of 4km.

KEY FACTS:

- Detailed and concept design
- Initial studies
- Span steel box girder
- Highway

