

Odaw drainage improvement works (lot 3), Accra, Ghana

Accra has been facing serious flooding problems in the past decades, which have claimed several victims. The downpour exceeds the drainage network's capacity, leading to building and property damage and traffic disruption. Worst hit are the city's poor as they have often settled where land is cheap: in the least desirable sections in low-lying areas adjacent to drains and watercourses.

Under the budget of Ghana's Urban Environmental Sanitation Project allocation was made for implementation of measures to alleviate serious flooding problems, including the Odaw drainage improvement work, as executed by BAM International. The Odaw Drain is the main outflow channel for Accra's storm water drainage network in Accra. The system is based purely on gravity, with mainly open drains and some covered sections in the central business district.



Location

Accra, Ghana

Client

Ministry of Local Government, Rural Development and Environment

Contractor

BAM International bv

Contract period

February 2004 – August 2007

Contract sum

€15.8 million

'To alleviate flooding, the profile of the channel had to be reconstructed into a rectangular/trapezoidal shape, so it could carry a 1:25 years flood.'

Scope of work

The project consists of the construction of a concrete-lined channel (3.4 kilometres long, 23 metres wide and 5 metres deep), including the construction of a new railway bridge and three pedestrian bridges. BAM International initiated the construction of an additional channel of 250 metres up to the Achimota school road bridge.



Replacement of a railway bridge

Ghana Railway Company was involved in the project, as their railway bridge crosses the Odaw channel. The old bridge was demolished and a new bridge was built. The bridge is composed of a concrete substructure and a steel superstructure, and is serving two railway lines. The steel superstructure, with a total weight of 92 tons, was prepared in the Netherlands by BAM project support, and shipped to Ghana. Installation was done in approximately 2 weeks time.

Pedestrian bridges

Three pedestrian bridges across the drain channel were included in the project. One concrete reinforced bridge was built new and two existing bridges were rehabilitated by building new concrete columns and re-installing the existing rehabilitated steel superstructures.

Financing

For budgetting reasons, the project was split up into three separate lots. BAM International, together with the Ghanaian and Dutch governments, structured the financing of lot three.

