



The Ngon Bridge – Laos



Single-Lane Permanent Span C-Class Truss, multi-span

Indonesia – Cambodia Malaysia – Myanmar – Laos

Transfield-MBK Steel Bridging Systems

Organisation

An outstanding infrastructure bridge achievement throughout the region was the introduction in 1980 of the Transfield prefabricated bridge systems.

Transfield Constructions were the provider of the Transfield MBK bridging system throughout the South East Asia region. This included Transfield's Joint Venture Company in Indonesia, P.T. Trans-Bakrie.

Clients included Government contracts, local authorities and private companies. In flow-on contracts, Transfield-MBK designed and supplied steelwork for a 235 metre double lane suspension bridge over the Mamberamo River in Irian Jaya and a Twin Suspension Bridge over the Barito River in South Kalimantan (each 420.5 metres in length with a 60 metre deck top truss bridge at the Banjarmasin End).

The original series of these bridges were fabricated and galvanized at Transfield Galvanizing - Seven Hills Plant Sydney, but were progressively manufactured by the developing fabrication and galvanizing industry in Asia.



Double-Lane Permanent Span A-Class Truss



Standard Truss Bridging



Standard Girder Bridging



Transpanel Single-Lane

Design

Designers of the systems were consulting engineers, Cardno MBK (formerly McMillan Britton Kell Pty Ltd) of Sydney, a firm with more than 50 years experience in bridge projects.

These bridges were designed for simple and rapid erection by untrained labour using only basic equipment augmented by special components incorporated as part of the system.

No falsework or intermediate supports were needed for construction.

The six bridging systems available cover span lengths from 10 to 120 metres.

Three of the systems provided permanent bridges while three were for semi-permanent or temporary purposes. Design complies with the AASHTO and Austroads Standards.

Key transport linkages were achieved at a wide range of remote coastal and inland waterway locations where a steel protective system was required with wide suitability for the many service exposures involved.

Some 3500 spans covering all six bridges systems have been installed since their inception.

All components were after-fabrication galvanized for maximum corrosion protection and complement this particular design use of steel.



Long Span Truss Bridging