



ROAD BRIDGES SRI LANKA

Designed as single and multi
span bridges



Sri Lanka Road Bridges

Sri Lanka – the former Ceylon – world’s most famous country for tea plantation has accorded high priority for the improvement and maintenance of economic infrastructure, in particular the road sector. The construction of Hirana Bridge, Molkawa Bridge, Weralugastotupola Bridge and two bridges at Lathpandura in Kalutara District (Western Province) have been identified as top priority projects.

MCE has been awarded with the turnkey construction of above mentioned five bridges with spans from 25 m to 70 m. Structures are designed as single and multi span bridges, for 2 lanes and footpaths on both sides. The statical concept selected consists of concrete substructures (piers and abutments) and a truss girder composite deck. During the projects first phase site investigations, topographical surveys as the bases for the conceptual and detailed technical design have been executed. Subsequent construction works commenced with site clearance and installation of local detours. Meeting the local maximum soil pressures, foundations are designed as 1,20 m diameter bored piles to a depth of maximum 30 m from ground level. Further on pile caps, piers, wing walls and bearing walls are constructed of concrete.

Meanwhile works are ongoing at substructures, steel members have been manufactured, galvanised and delivered to site. In adjacent to each bridge location preassembly yards for steel erection works have been installed where single members are bolted to complete girders. Both Lathpandura Bridges have been launched from preassembly yard over the abutment as well as temporary piers. Single support was given by mobile cranes at the last sequence of launching. Molkawa Bridge and Weralugastotupola Bridge have been installed by launching the complete superstructure by assistance of temporary piers which have been installed within the river bed. Hirana Bridge, the longest of them crossing a lake has been launched in sequences by temporary support of an adopted pontoon. Trapezoidal sheets bolted to transversal beams have been used as permanent shuttering for concreting the carriage way slab. Finally bridge equipment as handrails, guard rails, dewatering pipes as well as road connections and wearing course have been installed. Bridges have been opened for public traffic by the Sri Lankan Minister of Transport. The old and low capacity ferries have been replaced by 5 bridges designed for a life cycle of 100 years to ensure safe, economic and long term river crossings.

Facts and Figures

Total steel tonnage	750 t
Lengths	25 up to 125 m
Spans	25 up to 70 m
Width	10.5 m

Bridge type	Truss girder bridges galvanised
Client	Road Development Authority
Construction period	2007 – 2009