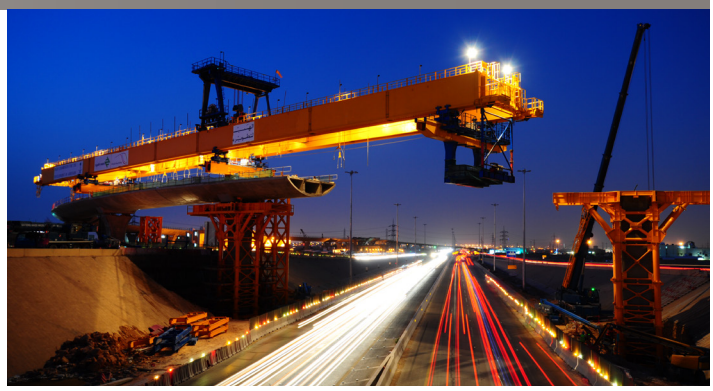
RAILWAY BRIDGES

RIYADH METRO LINE 3

RIYADH, SAUDI ARABIA



The Riyadh Metro is a rapid transit system under construction in Riyadh, Saudi Arabia which includes 6 different lines with a total length of about 180 km (111.8 mi). Riyadh Metro Line 3, the longest elevated line, runs in the East-West direction along Al Madinah Al Munawwarah and Prince Saad Bin Abdulrahman Al Awal Roads, starting at the west near Jeddah Expressway and ending at the east near the National Guard Camp of Khashm El Aan.

The Metro will be mostly elevated along the western part of Al Madinah Al Munawwarah Road, then underground in bored and mined tunnels in the central section of the line, and elevated again along Salah Al Din Al Ayoubi Road. The length of Riyadh Metro Line 3 is approximately 41.6 km (25.3 mi), and it features 20 stations.

The 26.4 km (16.4 mi) elevated viaduct consists of a three-cell precast segmental box girder with typical spans of 37 m (122 ft) and special continuous spans of 50 m (164 ft). Six long span structures with spans varying from 60 m to 95 m (197 ft to 312 ft) are required for the special crossings over existing interchanges. Typical and continuous spans are erected span-by-span with an overhead truss. Long spans are erected in balanced cantilever with cranes on the ground or lifting frames on the deck.

SYSTRA IBT was responsible for the design of the viaduct from the conceptual tender stage through the 100% detailed design stage. Along with the detailed design, SYSTRA IBT was in charge of the construction engineering and complete shop drawing production of the line, with site-based support staff assisting the contractor.

ESSENTIALS:

Owners: ArRiyadh Development Authority (ADA)

Contractors: Salini Impregilo Group: Ansaldo STS, Bombardier Transportation Ltd, Impregilo S.p.A, Nesma & Partners, Larsen & Toubro Limited

Prime Consultant: IDOM

SYSTRA IBT's Role: Bridge design consultant and construction engineer