Ferrol-Gijón Railway Line. Stretch Avilés-Gijón.

Viaduct Stretch 1

Twin girder composite structure with the peculiarity that the upper boom plates of the girders are situated above the level of the track, this means that the deck needs to take on a U-shape cross-section.

The deck width between lateral beam centers is 5.90m as well as two 1.23m wide exterior walkways, therefore giving a total width of 8.36m.

The total length of the bridge, measured on the axis layout, is 265.0m. This is distributed along 7 span lengths of 25-48, 5-31, 5-37, 5-37, and 5-55-30metres.

The lateral steel girders have a double-T cross section and taper between 2.70m and 5.50m. The girders are connected via transversal double-T 60cm-deep steel beams and are equally spaced each 2.50m. A 27cm-deep reinforced concrete slab is placed upon these beams. The web of the lateral beams has been stiffened transversally, so as to coincide with the transversal beams, so creating U-shaped transversal frames.

The exterior walkway employs a 'Tramex' grill which rests upon steel tapered ribs which coincide with the transversal frames.

Viaduct Stretch 2.

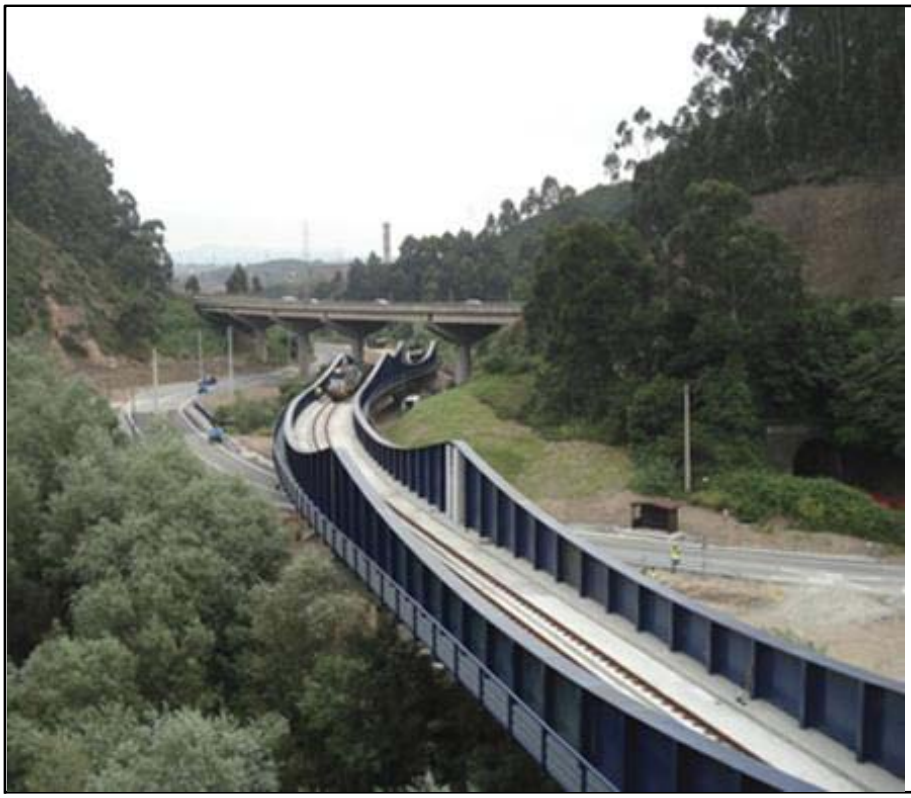
Twin girder composite structure with the peculiarity that the upper boom plates of the girders are situated above the level of the track, this means that the deck needs to take on a U-shape cross-section.

The deck width between lateral beam centers is 5.30m as well as two 1.23m wide exterior walkways, therefore giving a total width of 6.83m.

The structure is isostatic and applied to both axes. The total length of the bridge, measured on the axis layout, is 38.66m. The right-hand girder is 35.16m long whilst the left-hand one is 42.96m.

The lateral steel girders have a double-T cross section and taper between 1.85m and 3.50m. The girders are connected via transversal double-T 54cm-deep steel beams. A 33cm-deep reinforced concrete slab is placed upon these beams. The web of the lateral beams has been stiffened transversally, so as to coincide with the transversal beams, so creating U-shaped transversal frames.

The exterior walkway employs a 'Tramex' grill which rests upon steel tapered ribs which coincide with the transversal frames.



Spain /2009

Project data

Structural Type:
Viaduct stretch 1. Composite Railway structure employing twin girders
Viaduct stretch 2. Composite Railway structure employing twin girders
Location:
FEVE track, stretch Aboño-Sotiello between these two towns
Proprietor:
Railway Authorities
Ministry of Public Works.
Scope of Works:
Construction Project and Technical Assistance to the Constructor