A249 Sheppey Crossing





Client

Carillion for Highways Agency

Project Description

A249 Iwade Bypass to Queenborough Improvement Scheme - a DBFO Contract for the construction, operation and maintenance of the A249 from the M2 junction to Sheerness Docks.

The most prominent feature was the new Sheppey Crossing – a high level viaduct of 19 spans carrying the rerouted A249 dual carriageway over The Swale – the channel separating the Isle of Sheppey from the mainland of North Kent, local roads and the Sittingborne to Sheerness railway line.

Cass Hayward Role(s)

- · Options review and design for tender
- · Detailed design of viaduct superstructure, substructure, piling and river caissons
- Detailed design of steelwork launch scheme including launch nose and pier top temporary crossheads.
- · Viaduct Designer Site Representative.

Project Statistics

- Works value £30m
- · Completed June 2006
- · 1.25km long on a curved alignment
- Crest of the road 29 metres above high water level
- 92.5m maximum span over The Swale

Special Features

- Linear variation of successive span lengths and associated tapering depth
- Bridge launching to minimise impact on environmentally sensitive flood plain
- The launch phase over the main span achieved a 92.5m freestanding (curving) cantilever which is understood to be the longest achieved in the UK
- River foundations are massive gravity bases to resist ship collision

Awards

- I Struct E -Award for Transportation Structures Winner
- BCSA Steel Design Award
- ICE (South East England) Thomas Brassey Award