

A34 Chieveley, Bird Lane South Overbridge

Completion: 2004

Bridge Owner: Highways Agency

Designer: Mott MacDonald

Steelwork Contractor: Fairfield-Mabey

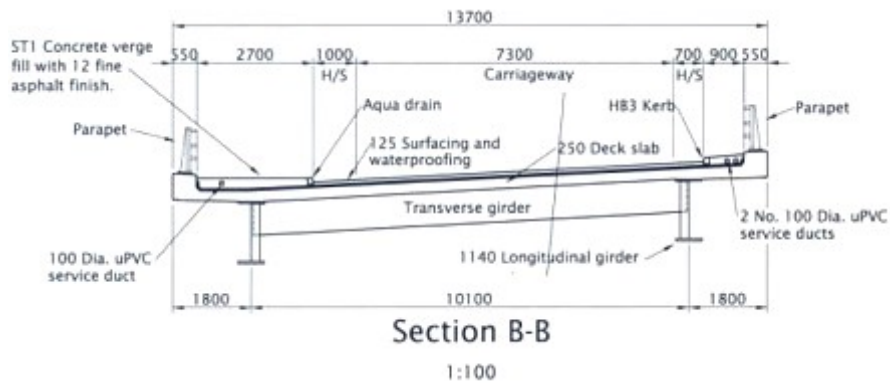
Steel Producer: Corus

Bird Lane South Overbridge is one of five weathering steel composite highway bridges on the A34 Chieveley / M4 Junction 13 improvement project. The scheme will reduce congestion at this major N/S, E/W interchange, and was carried out under a design and build project.



This three span continuous integral bridge at 30 degree skew is made with weathering steel at a standard minimum headroom of 5.3m. The outline design was an insitu reinforced concrete bridge on this “green-field” site. The weathering steel ladder deck solution was selected to minimise both the initial cost and future maintenance.

The two main girders are 1.4m deep and 10m apart. The transverse girders are 750mm deep, and at 3.2m centres. Integral abutments and the use of weathering steel minimises the future maintenance requirements. Stability of the bottom flanges at the internal piers is provided by inverted U frames.



The plate girders were fabricated on a “T & I machine”, and transported to site singly (max. length 35m). The steelwork was erected (span and cantilever girders) using cranes. Precast “omnia” planks span longitudinally between transverse girders, and a standard 1.5m cantilever formwork system was used for all 5 bridges.