

Rugeley Eastern Bypass - Flood Alleviation Arches

Client

Staffordshire County Council

Consultant

Staffordshire County Council

Contractor

Wrekin Construction

Work Completed

2006

The scheme involved 2.2km of new bypass with footways and a cycle lane, on a raised embankment through the River Trent flood plain. It was created to form a gateway for new investment in the area and to remove heavy through-traffic from the congested town centre.

Reinforced Earth Company Ltd (RECo) worked with Staffordshire Highways and Wrekin Construction to design a multi-span flood relief arch structure to replace an existing masonry arch bridge. The design of the new structure needed to allow phased construction so that traffic could be diverted onto the new structure before the old bridge was demolished.

Reinforced Earth Company designed and supplied 27 arch units to form the bridge structure. The 24 tonne single piece arch units required no temporary support and the 15 units required for the first phase of construction were erected in a single day.

A Reinforced Earth wire mesh faced retaining wall was used to form a temporary stop end to allow the old arch bridge to be removed. The Reinforced Earth bridge spandrels and wingwalls were brick clad to provide an attractive finish in sympathy with the adjacent Grade II Listed river bridge.

The bypass has won awards for its technical expertise and its community focus. It was completed three months ahead of programme and within budget.

