

Bonds Mill Lift Bridge



Details

Description	Advanced composite road bridge
Client	Cotswold Canal Trust
Date of project	1994
Where FRP composites are used and why	Complete composite bridge –worlds first advanced composite road bridge. Composites used for cost savings, provide low maintenance and good durability. The bridge is 8.2m long and 4.3m wide carrying a single lane of traffic.
Type of composite used	The 8.2m span bridge deck is manufactured from 10 ACCS units which are bonded together using an epoxy resin to form an integral 3D multi-cellular box girder with six main cells which are filled with epoxy foam. The deck is a 'double ply' of ACCS skins with cells running in two orthogonal directions. The total weight of the ACCS deck and surfacing is 4.5 tonnes for 35m ² of deck area giving a live to dead load ratio of 13.5.
Performance in service	Bridge monitored by University of Surrey.
Project partners	Maunsell Structural Plastics
Key publications	Head P. The world's first advanced composite road bridge. In: Symposium on short and medium span bridges, Calgary, Canada; 1994.

Contact