

Laundry Aqueduct



Details

Description	Aqueduct across railway line
Client	Network Rail
Date of project	2007
Where FRP composites are used and why	Lightweight GRP deck meant reuse of the foundations was possible. Single 8 hour overnight line closure. Limited space/access – lighter materials a key advantage. Lightweight FRP pier trestles are easier to handle/restrain – less temporary works reduces impact on ground.
Type of composite used	Pultruded GRP parts. U-shaped GRP liner utilised to minimise the risk to the main structural members in the event of the water freezing solid. Splice joints.
Design details	Wind loading – overturning effects – lighter structure. Trough liner details – flow characteristics/ice loading. Articulation – piers and abutments - +/-20mm movements to be accommodated at tie into fixed bearing bankseat.
Project partners	Tony Gee and Partners, Pipex Structural Composites
Key publications	Kenchington A, Laundry Aqueduct; reconstruction in FRP, NGCC Developments in FRP Bridge Design, February 2010, London.

Contact