

# STRONGWELL®

## APPLICATION PROFILE



### STRONGWELL FRP REPLACES CORRODED STEEL AQUEDUCT

Strongwell's COMPOSOLITE® fiberglass building panels and EXTREN® structural shapes were used to complete a FRP Aqueduct over a railway at Bicester in the United Kingdom. The fiberglass products were selected by PIPEX Structural Composites Ltd., a Strongwell distributor and fabricator in the U.K., to replace a blocked and corroding steel structure. PIPEX chose COMPOSOLITE® fiberglass building panels and EXTREN® structural shapes to build the 118 foot (36M) long, 31 inch (785mm) wide aqueduct and trestle supports.

PIPEX fabricated the aqueduct in three modules, joining them on site. PIPEX used a fail safe adhesive dispensing system to guarantee a correctly mixed adhesive was applied to the joints between the COMPOSOLITE® panels. The new aqueduct features an internal FRP trough with a durable epoxy liner. The aqueduct's design was by Tony Gee and Partners with product design assistance and fabrication by PIPEX, allowing the entire system to be supplied from a single source.

Strongwell's COMPOSOLITE® and EXTREN® were winning choices because of the products' high strength, low maintenance and low weight properties. The lightweight FRP components were quickly assembled on site, resulting in reduced installation costs and disruption of railway service. The A-frame trestles were engineered to remain standing even if one trestle was damaged. The fiberglass materials also require less maintenance over the lifetime of the structure, resulting in lower life-cycle costs to the customer.

### TECHNICAL DATA

Product:	FRP Aqueduct
Process:	Pultrusion, Fiberglass Fabrication
Materials:	COMPOSOLITE® fiberglass reinforced polymer building panel system EXTREN® Series 525 fiberglass reinforced polyester, fire retardant
Sizes:	COMPOSOLITE® 24" x 3" panels EXTREN® structural shapes: 10" wide flange beam 3" x 3/8" angle 3/8" plate
For:	PIPEX Structural Composites Ltd.
User:	Network Rail



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FRP AQUEDUCT

