Project Fact Sheet

PORTH RELIEF ROAD, STATION STREET BRIDGE

	ABM Bridge Systems, Matiére CM4 12.5m span
Project	Port Relief Road, Station Street Bridge
Client	Rhondda Cynon TAF
Completion Date	Matière structure completed April 2006
Design Team	Glamorgan Engineering
Description	Replacement of an existing failed bridge structure with Matière Opti-Cadre 12.5mx6.0m

FACTFILE

Structure	Matière Opti-Cadre 12.5m x 6.0m precast buried concrete box.
Span	12.5m (internal)
Height	6.00m (internal)
Length	12.26m (7 no. Units @ 1.75m wide)

REQUIREMENTS

- Replacement of existing failed bridge
- Reduce cost and construction time
- Complex and intricate installation process .

SOLUTION

- 12.5m x 6.0m Precast buried concrete box structure.
- Highly skilled in-house construction team to lift heavy components around intricate and complex temporary propping system.
- Retaining wing walls extending on four sides up to 38m in length

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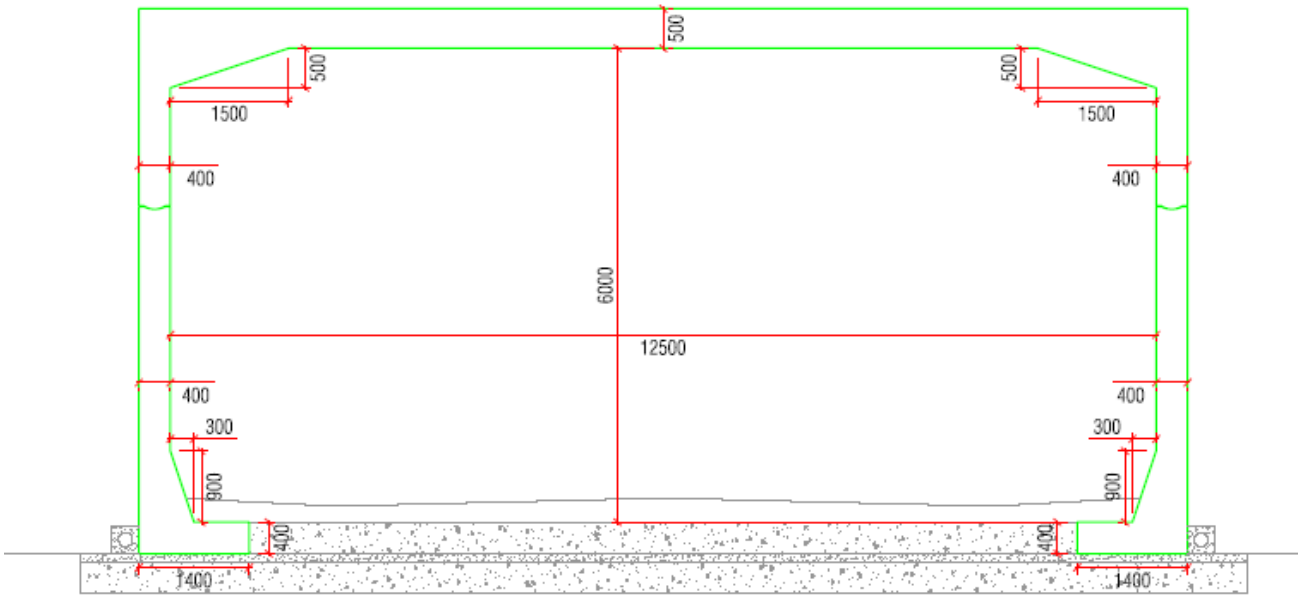
The Matiére system was originally developed in France for hydraulic structures in the 1980's, since then the system has been developed into a modular range of arch, box and portal frames for a wide range of transport and infrastucture applications. Indeed, some 10,000 structures already exsist worldwide exploiting soil structure interaction to minimise section sizes and allow rapid, cost effective on-site installation with precast units.

ABM hold the licence for the Matiére system in the UK and Ireland.



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DETAILED SPECIFICATION

Upper Elements

Mould	Matière Opti Cadre 12.5m
Span (internal point to point)	12.5m
Height (internal soffit to joint)	2.0m
Roof thickness	Varies 40mm- 500mm
Number of units	7
Volume of units	
Weight of units	36.8 tonnes
Additional information	

Lower Elements

Mould	Matière Opti Cadre 6.0m
Height (top of toe to ball/socket joint)	4.0m
Length of toe (from inside of wall)	700mm
Wall thickness	400mm
Toe depth	400mm
Number of units	14
Volume of units	
Weight of units	10.7 tonnes
Additional information	
Heel construction	In-situ concrete

Additional Information

Concrete Grade	C50
Cement type	CEM1
Reinforcement cover	35mm int /55mm ext
Couplers	N/A
Finish	As struck from steel formwork

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