



## Project Fact Sheet

M6/M7 KILCOCK TO KINNEGAD 225M<sup>2</sup> ARCH



<b>PRODUCT</b>	ABM Design and Build, Matière CM4 14.25m span
<b>Project</b>	M6/M7 Kilcock to Kinnegad Structure 7
<b>Client</b>	West Meath County Council
<b>Completion Date</b>	Matière structure completed September 2004
<b>Design Team</b>	McCarthy, Hyder, Carl Bros.
<b>Description</b>	Two separate arch structures to support the Galway bound and Sligo bound lanes of the motorway

<b>FACTFILE</b>	
<b>Structure</b>	Matière CM4 225m <sup>2</sup> Roof Element
<b>Span</b>	14.25m (internal)
<b>Height</b>	3.0m (internal)
<b>Length</b>	40m and 67.5m excluding wing walls

### REQUIREMENTS

- Two arch structures to support Galway and Sligo bound carriageways
- Reduce cost and construction time
- Installation over live river.

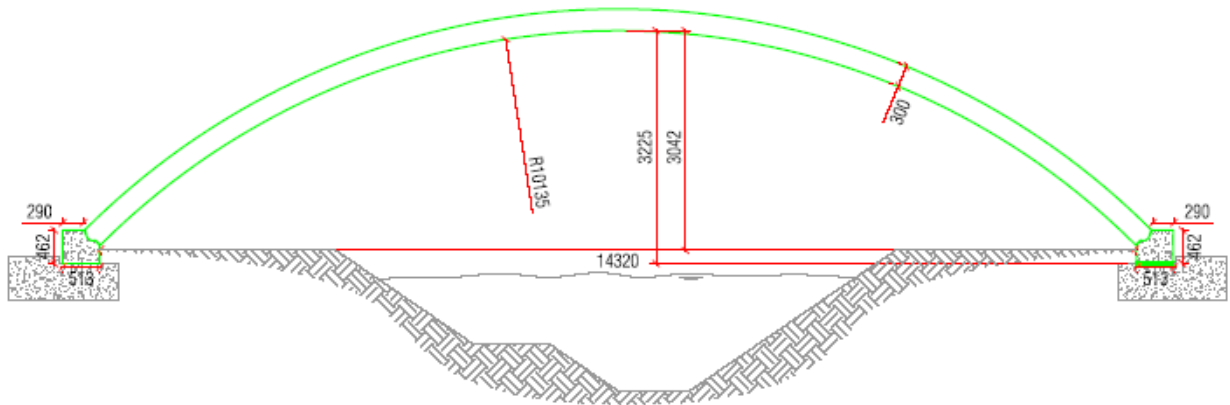
### SOLUTION

- CM4 225m<sup>2</sup> roof comprising of precast spandrel walls and wing walls with feature finish
- Structure incorporates 2m light well.
- Each bridge installation took 3days

### Matière®

The Matière 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 infrastructure applications. Indeed, some 10,000 structures already exist 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 Matière system in the UK and Ireland.





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### DETAILED SPECIFICATION

#### Upper Elements

Mould	Matière CM4 225m <sup>2</sup>
Span (internal point to point)	14.25m
Height (internal soffit to joint)	3.0m
Roof thickness	300mm
Number of units	43 total excluding wing walls
Volume of units	12.09m <sup>3</sup>
Weight of units	30.23 tonnes
Additional information	

#### Lower Elements

Mould	NA
Height (top of toe to ball/socket joint)	NA
Length of toe (from inside of wall)	NA
Wall thickness	NA
Toe depth	NA
Number of units	NA
Volume of units	NA
Weight of units	NA
Additional information	
Heel construction	NA

#### Additional Information

Concrete Grade	C50
Cement type	CEM1
Reinforcement cover	35mm int /30mm ext
Couplers	N/A
Finish	As struck from steel formwork



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