## **Project Study (8)**



#### The Royal Train Shed – Milton Keynes

(Completed May 2009)

**Project:** To re-furbish the Royal Train-Shed in Wolverton, Milton Keynes, and to build ten 3-bedroomed houses inside the original building. This involved blasting and re-pointing all of the existing brickwork, followed by removing and repairing all of the 80 cast-iron window-frames. The roof was then completely replaced (timber with glass skylights) and then the ten houses were built inside.

The rough ground outside (the original site of the Wolverton football ground) was landscaped into a park with a small lake.

#### **Cast Iron Columns Detail**



**Before**: The cast iron columns in 2007 before the blast-cleaning started.



**After:** The columns in 2009 after being zinganised. The buildings on the right are the ten new houses inside



The cast-iron support columns before the roof was put on. These columns supported the original overhead crane.



The columns after the new roof has been installed

## System used:

Zinga:  $1 \times 80 \mu m$  DFT Alufer N:  $1 \times 100 \mu m$  DFT Vinyl enamel:  $1 \times 60 \mu m$  DFT

### **Main Shed Detail**



**Left:** A view of the main train shed in 2007 where the Royal Train of Queen Victoria was kept when not in use.

At this stage, all of the cast-iron support columns on the east side of the building and all of the wrought-iron roof-truss ties have been blast-cleaned and zinganised.

The dirt floor has been totally untouched at this point and the cast-iron windows are being removed as a few of them have cracked frames that need to be re-built before being blast-cleaned and then zinganised.

The houses were built in here.

**Right:** A view of the exterior of the completed building in May 2009.

The 40 cast-iron windows can be clearly seen in this view. They were removed, some were partially re-built and then they were all blast-cleaned and coated with Zinga.

The zinc coating on the window frames was sealed with a one-component polyurethane MIOP coating called Alufer N prior to the final painting with vinyl enamel and then fitting and glazing of the hundreds of glass panes.



## **Cast Iron Window Detail**



The cast-iron windows measured 5 feet x 12 feet high



Three frames were cracked and were welded and then blast-cleaned as normal before being coated with Zinga



# **Overhead Crane Detail**



The crane was blast-cleaned and zinganised in '07 before the roof had its new timbers and glass skylights fitted.



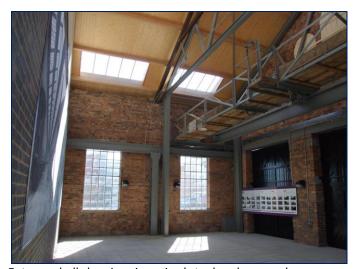
A view showing the crane resting on the H-beams supported by the vertical cast-iron columns.



This view of the crane in May '09 shows the roof timbers and skylights now in place



The original crawl-plank on the overhead crane were cleaned off and re-fitted onto the framework



Entrance hall showing zinganised steelwork everywhere



Cast-iron column, wrought iron roof-tie and mild-steel truss