

Project Woodside, a 54-inch train shed for a tenner in under a week

-Christopher Day

When I first conceived the concept of a substantial dome train shed at our recently completed OO gauge Birkenhead Woodside Station (one of 7 major termini on the Banbury Connections layout), I believed it would be an extremely complex and costly project for a pretty destitute 20-year-old just completing their accounting degree! Little did I know that through careful asset management I could fully construct the train shed for a mere ten Pounds Sterling and in under a week. Although the arch was to be placed at Birkenhead Woodside station, the design used was inspired more by London Kings Cross and Bradford Exchange stations.

The first challenge was the fabrication of the two side walls on which the steel superstructure would rest. In order to reduce cost, I used a sheet of plywood kindly donated by the nearby Newcastle and Fassifern Railway. This sheet proved extremely versatile. It was used to construct part of our chicken coop, this wall and, subsequently, the semi-circular arches of the train shed. The wall was cut to shape using the jigsaw with each arch in the wall requiring careful sawing to ensure a consistent finish. In order to achieve a stone appearance, lines were carefully measured, prior to being scored with a Stanley Knife. This produced an extremely realistic yet low cost stone finish. The wall was then painted prior to the adding of cardboard squares to form the capping stone surrounding each of the wall's 14 arches.

The main aspect of the project was construction of the 54" dome train shed. Several materials were considered for the elaborate arches found in prototypical train sheds across the United Kingdom. In the end, the plywood used for the wall was chosen. This provided a low cost yet strong base for the connecting frame. Each arch was carefully measured with a bow-spring compass and cut with my jigsaw using a fine blade. In order to make the cutting easier, the pendulum action on the jigsaw was engaged.

Once the 8 arches were cut out, a suitable method for joining them was required. As it is often difficult to acquire scale timber in such long lengths it was deemed that the best course of action was to get them cut. Luckily, Banbury Connections is located close by to one of the premier outdoor model railway scratch builders in Australia. After paying a visit to my colleague at Gibbergunyah Creek Workshops 24 lengths of 3mm by 3mm timber was cut and supplied. In addition, the lengths that formed the base frame for the structure were cut.



The completed arch structure skeleton on the table tennis table prior to painting.

Finally, we had to spend our first £3.00 buying a tube of Zap Goo, chosen for its ability to quickly stick almost anything together. Using the Ping-Pong table as a workbench I glued the base frame together. Old bicycle spokes were employed as steel rods to attach the arches to the base. This provided additional support to the glue which was deemed to have inadequate strength on its own. Once this was completed the 3mm by 3mm lengths were attached in about 1" intervals up the length

Project Woodside

of the structure. This achieved a completed arch framework ready for painting.

As arch painting was predicted to be a long and arduous process, extra help was called in to get the job completed within a short period of time whilst I put the finishing touches on the structures support walls. Due to the paint consumed in the project, an accounting allocation of about £1 was required.



The completed skeleton in position after being painted



Inside the train shed with a BR Standard Class 3MT Tank Locomotive heading the London-Birkenhead in the foreground. The individual panes of glass can just be seen.

across the arched roof. It certainly beat individually building over 3500 panes which is my preferred answer when asked about how the effect was achieved! Within the structure, a small area adjacent to the station buildings was not supported by the main wall. To support the roof in this area a small amount of 1/8 diameter brass rod was used. Once painted in Midland Maroon, these made suitable support posts. The brass led to an allocation of about £1 towards the project.

The painted arch attracted much attention when first lowered into place above Birkenhead Woodside Station. Yet without any roofing one could not call it complete. Sheets of styrene corrugated iron were assessed at the local hobby shop. Unfortunately, to cover the roof in this material would have cost in excess of £60. In addition, it was considered that corrugated iron would hide too much of the underlying station structure. As an alternative, a form of clear sheeting needed to be applied to the roof.

To the railways benefit, the home office (Mum) made available an old clear plastic table cloth which was no longer in use. This provided a durable yet realistic covering for the arch structure. The clear plastic sheet was cut to shape and stapled onto the structure using a heavy duty staple gun. As glass in the 19th Century could only be manufactured in much smaller panes than today, a form of covering was required to create the illusion of small panes.

The problem was solved using gutter guard which I found surplus from the construction of my train shed (the real one!). The gutter guard provided a cheap means of covering the structure to create the illusion of small panes

Project Woodside



The completed Woodside Station with its steam vents in place and Birkenhead Buses in the foreground.

The last task involved construction of the air vents located on the top of the arch structure. This proved challenging due to their intricacy. These were constructed out of lengths of Balsa wood quad with small pieces of Balsa underneath for support. This created an illusion of vents across the top of the arch. Cardboard with printed corrugated iron paper was then applied over the quad frame to create a corrugated iron roof which covered the vent structure. Unfortunately, these finishing touches proved expensive with a total of £5 being spent on the Balsa wood and

cardboard!

If my adding up is to be trusted (I do have an accounting and finance degree!) than the project comes in at exactly £10. This demonstrates what a little flexibility, recycling and innovation can achieve on a model railway.

Notwithstanding the success of Project Woodside a number of areas of improvement have been identified. When building the structure, I measured out the arch supports without reference to material availability. However, if each arch was spaced to the width of the gutter guard roll, it would have saved joining the gutter guard sections together which was aesthetically detracting. Furthermore, when applying the clear sheeting, it would have been prudent to have not stretched it under as much tension as I found that the tension created small ripples in places which reflected strongly under light. Clear plastic sheet appears to be a preferable material and again requires arches to be appropriately located. The financial implications of such a revised specification could push outturn costs up by around £10!