

Forge Valley Community School Newsletter

Forge Valley Community School BSF newsletter Issue 2 July 2010



What's Happened So Far?

The construction process of Forge Valley Community School has progressed significantly since the last newsletter. The foundations which include driven and CFA bored piles for the main school block are finished. The driven piles were previously used in the North Sea as gas pipes and have been recycled for use on site. The concrete for the upper and lower floor slabs of the main block has been poured which included re-enforcement bars and a water proof membrane underneath. The steel frame of the main block has almost been completed on the upper slab, which consists of the main entrance to Forge Valley, the Resistant Materials teaching rooms on the ground floor, Humanities rooms on the first floor, Maths and English rooms on the second floor, and Art, ICT and Design Technology rooms on the third floor. The

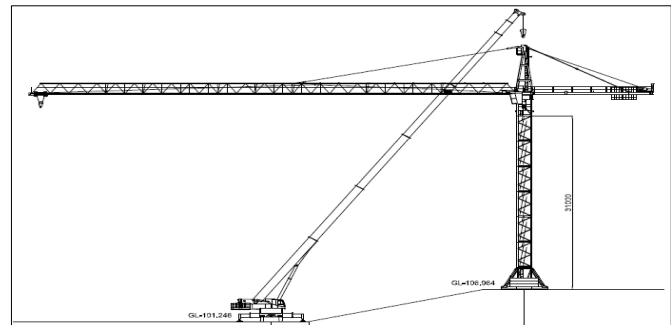
steel work on the lower slab, which contains the atrium area and lecture theatre, is due to start erection on the 19th July. The piling for the sports block has been completed, with the floor slab due to be poured in August.



The Journey Ahead

The bricklayers are scheduled to begin work on site at the start of August. They will be starting with the internal block work between the steel columns on the south side of the building, which faces the current Myers Grove School. Once the block work is completed they will begin the facing bricks of the building, which are honey coloured bricks on the front south side, with blue engineering bricks at the main Forge Valley entrance. The scaffolders will begin erection as soon as the bricklayers have finished the first lift and then follow the

brick work around the building. The Hanson precast floor slabs will then be topped off with concrete to give the finish floor level of the building. The tower crane is due on site on the 5th, to be fully operational for the 9th. The tower crane will have a jib length of 65m and be almost 35m tall. There will be a 200 ton mobile crane used, with a reach of 63m, to erect the top section of the tower crane.



Additional Information

VINCI Construction is still maintaining their eco friendly approach to construction. To date 385.7m³ of materials from the Forge Valley Project has been recycled. VINCI Construction is committed to the Considerate Constructors Scheme which monitors a projects interaction with its locality. We will engage with, consult and inform local residents regularly through a variety of forums.

Please follow the construction process of Forge Valley School on www.forgevalley.sheffield.sch.uk or on twitter at <http://twitter.com/forgevalley>.

If you have any opinions, feedback or queries regarding the construction process of Forge Valley Community School, please contact Graeme Bowen on 0114 234 3792 or e-mail Graeme.bowen@vinciconstruction.co.uk

Forge Valley School forged in the mills of Yorkshire!

Step 1 – Delivered To Factory

The steel for the frame of the Forge Valley School begins life in the heart of Yorkshire. It is delivered by Corus to the Billingtons fabrication factory in Barnsley (see figure 1). The basic beams and columns come to the factory already cut to required lengths, which are ordered in advance. The steel is then unloaded in the



Figure 1



Figure 2

delivery yard onto a conveyor system which rolls the steel into the factory (see figure 2). Once the steel is in the mill it can begin its customisation process to make the steel fully functional to its desired purpose.

Step 2 - Fabrication

The first process in the production line is for the steel

to be marked up and organised into categories (see figure 3). On Forge Valley School there is Block A, Block B, and Block C steel section. If numerous parts of steel are required to make a truss for example, these are all pieced together. An operative will then weld on any joints, base plates or connection plates required to the column or



Figure 3



Figure 4

beam (see figure 4). Once the steel is completed and the dimensions have been checked it is ready to go on to the next step in the production line.

Step 3 – Painting And Delivery To Site

Large pieces such as trusses or support beams can be fabricated once all the dimensions have been checked (see figure 5).



Figure 5

The steel can then be painted. Any sharp edges are grinded off and it is rubbed down, then steel is painted in a primer. The colour is Billingtons Beige, which is a trademark of Billingtons (see figure 6). Once the steel has been erected on site, the paint has to be inspected and any cracks or scuffs to the paint have to be touched up. This is so the fire protection required by building regulations is not affected.



Figure 6

Any structure you see in this colour has been fabricated by Billingtons. The steel comes out of the factory on the conveyor system and is loaded onto the wagons using the in house crane system. Once the wagons are loaded onto a low loader trailer, with a maximum weight of 26 tons, they are then delivered to site when required (see figure 7).



Figure 7

The Steel on Site

As steel arrives to Forge Valley School it is directed to the required area, whether this be the top slab, the bottom slab or the sports block, and then parked up in position with the help of a banksman. Safety nets are temporality fixed to the side of the trailers and the steel is unloaded using a mobile crane, and stacked into a convenient position on the slab. There are currently two cranes on site, a 50 ton crane and 25 ton crane. The very first piece of steel being erected on site can be seen in



Figure 8

figure 8. The steel on the top slab is almost complete. The next step is the bottom slab, followed by the sports block.



The steel currently erected at Forge Valley School