

Precast cells secure early release for HQ

A combination of team work and precast components is helping Balfour Beatty finish a PFI police station on schedule. Emma Forrest reports

MOST project managers admit to wanting to return to jobs they have presided over to see how they have fared once completed. But there is something about the type of properties built under Private Finance Initiative schemes that is less appealing. After all, how many of us enjoy visiting prisons, hospitals or going to court?

Balfour Beatty project manager Gary Reay is soon to be released from a law and order project in Denbighshire, North Wales. The new police station (due for completion on December 8) will be a regional headquarters for the North Wales Police.

Perched by the A55 near the historic town of St Asaph, the headquarters is not actually being built for the obvious client, the North Wales Police Authority. The authority is merely the end user. As a PFI deal, the buildings – two office blocks and a block of custody suites (as cells are now known) – will be delivered to banker Babcock and Brown, which has put up the money and will lease the property under a 25-year deal.

But Mr Reay does not see much of Babcock and Brown. His principle point of contact is property consultant Drivers Jonas. "We report to them on progress, quality and safety," he says.

This is the first PFI project that Mr Reay has been involved with from the design stage to final handover. He says the entire experience has been very educational.

"Once you get on site it is much like any traditional design and build. Drivers Jonas has experience of this kind of project and only comes on site once a month for a meeting, though I'm sure if we were having problems we would see a lot more of them. Where it is different is the process to get to site. It can be long and drawn out."

In addition to being a divisional headquarters with administrative facilities and custody suites, the site will also provide a scientific support unit, with specialist laboratories for forensics and fingerprint analysis.

Both office blocks are three storeys high and clad in terracotta rainscreen, in a shade reminiscent of St Asaph cathedral and another renowned local church that can be spied from the top of the development.

Mr Reay considers the use of precast components on the scheme to be a major success. With just 60 weeks to complete the project, time-saving measures were warmly welcomed.

"Traditionally, cells are constructed of blockwork with a reinforced render finish," he explains. "Here we have used precast concrete instead. The advantage is in the repetition; they were all being made while we were still doing the groundworks and they took four weeks to install. There are major programme benefits."

Early consultation on services for the cells was crucial because they have to be incorporated in the cast.

"They are self-finishing, too," adds Mr Reay. "All you have to do is paint them. With a traditional construction method it would easily have taken twice as long as that. So much could have gone wrong, but this has been the most pleasing part of the construction process."

Using precast concrete frames for the main office building also took seven weeks instead of the 12 weeks that would have been required for in-situ frames.

The police station has received a high environmental BREEAM assessment, thanks to its use of natural ventilation and its central atrium. The concrete frames also have thermal properties.

To make sure the headquarters could achieve the green credentials demanded by the client, M&E contractor Shepherd was brought into the job a year before financial close, along with other key subcontractors; an approach which Mr Reay recommends.

"The mechanical design and architectural design have had to be very closely linked. There is a very complex interface between the two parties," he says.

"Getting key members of the supply chain in place that early means that by the time you get on site you know the job inside out. Previously you would have been on the back foot from the start."



Precast components were key to keeping the project on schedule (above). Subcontractors were involved from the very early stages of the project (right). The terracotta rainscreen cladding (far right) is similar in colour to St Asaph cathedral



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Gary Reay, project manager, Balfour Beatty

Project details

- Main contractor: Balfour Beatty
- M&E engineer: Shepherd Engineering Services
- Laboratory fit-out: Labflex
- Client: Babcock and Brown Properties
- Client's agent: Drivers Jonas
- End user: North Wales Police Authority
- Project duration: 60 weeks
- Contract value: £12.7 million

Once construction is completed maintenance will be carried out by Rentokill Initial Management Services.



Rehoming the great crested newt

BEFORE work could start on the 11-acre greenfield site, a population of great crested newts had to be rehomed. The largest newt found in Britain, great crested newts are found throughout the country, but are a protected species as a decline in ponds and small lakes, their natural habitat, has led to a decrease in their numbers. It is illegal to cause them harm or death, or to disturb them in any way, and a licence is needed to catch, possess or handle them.

After the newts had been found at the St Asaph site, Balfour Beatty employed environmental consultant Middlemarch in March 2002, to coincide with the newt migration season – this is the time of year when they become active again after winter hibernation.

A net fence was erected around the perimeter of the site with traps made inside the fence line. Middlemarch visited the traps to collect captured newts and released them in a pond away from the site. To ensure all of the local population had been caught, the traps had to be newt-free for 15 days. The area was then stripped of vegetation to stop newts from re-inhabiting the site, and the construction work could finally commence.

"February to May is the window in which the newts migrate before they start breeding," says project manager Gary Reay. "If this work had not been carried out we would have had to wait another 12 months to start work. In total a few dozen newts were found."

The newt detection measures must stay in place for the duration of the construction phase. Logs of daily inspections of the fence must be sent to the Countryside Commission for Wales every six weeks. 'Newt-friendly' drains that do not have raised edges have been incorporated into the scheme's design.