

Case study: Bouygues UK

Planning Wasn't Just Academic for Bouygues UK at Norbury Manor Primary School



About Bouygues UK

Bouygues UK have been operating in the UK since 1997, during which time it has developed and grown its business organically. This, along with the company's acquisitions of Denne Construction, Leadbitter, Thomas Vale and Warings – and the creation of its specialist business, Bouygues Development – has helped it to become one of the biggest players in the UK construction industry.

Operating on around 110 sites at any one given time, from Birmingham to Brighton and Southampton to Swansea, Bouygues UK's annual turnover is in excess of £860m. The company has a workforce of around 1800 people to help deliver its projects, providing vital homes, infrastructure and regeneration for people living in communities across the UK.

When Colin Sanders of Bouygues UK submitted his application to the Construction Manager of the Year Awards in the New Build and Refurbishment up to £3m category, he knew he would be judged against some of the best in the construction industry. It was a brave move, because the application centred on the success of his very first project leadership role.



Colin was awarded the Gold Medal in his category, with his planning excellence, commitment to building great relationships with local stakeholders and commitment to social responsibility all contributing to the accolade.

Term-time Rules

The new build and refurbishment of Norbury Manor Primary School for the London Borough of Croydon was a short duration build but with some significant targets to achieve and tough challenges to overcome. The £1.83 million contract would deliver the school not only a five-classroom extension

to cope with increased pupil intake, it would also create a new extension and roof to the rear of the school, and involve significant refurbishment and remodelling of existing pupil and teacher facilities during the final few weeks.

The milestones of the 29-week build were necessarily set around the immovable dates of the school year. With a completion deadline for the work determined by the prospect of children suddenly flooding onto site, there was no room for error or delay in the timeline.

Strict with Trades

Keeping subcontractors and trades on track was critical. Colin used Powerproject as a platform for that, as he outlined: "I used Powerproject to create drop lines and enable me to look ahead at the programme with our subcontractors. I could easily print off the programme and sit down with

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them to discuss where we were, what we needed to achieve and by when. We discussed how each trade might work to meet the requirements, then I would plot the different scenarios into the programme. I could then see the best-case scenario, discuss labour levels, and set the sequence to achieve the deadline.”

Throughout the build, Colin used Powerproject to adjust work orders in real time, and remarked: “I used the software to re-sequence activities and revise orders whenever something pushed past its target end date. It allowed me to monitor trades against their targets and foresee when targets might not be met. It gave me time to look at possible re-sequencing or labour adjustments and overlaps.” The most significant instance occurred with the timber frame contractor: “Although the duration of one activity was longer than originally planned, and created issues around the interface with the rest of the school, I was able to use Powerproject to ensure we could still stay within the timeframes needed.”

Learning to Communicate

Colin was in charge of maintaining relationships and reporting transparency with all stakeholders, including the client at the London Borough of Croydon. He outlined the process: “Each month we held a client stakeholder

meeting, and part of that was running through the progress on site. Using Powerproject I would run off a drop-down for the week and use this to discuss where we were, what we were doing to mitigate any possible delays, and to give them a good snapshot of where the project was, so we could reschedule to the baseline as needed.”

Powerproject was used as an essential part of communicating not only with the client but with the head teacher, who had to keep the school in operation during the build. The new build extension, which had to take place

during term-time, had to be built onto and over the existing school creating a double storey building. Working on it would take two toilets out of action – and this was causing pushback from the Head.

Colin explained how this was addressed: “On the upper floor, the corridor which linked old and new areas went through an existing classroom. So we had to manage significant safety considerations of working so close to the live school, and the impact on some of the facilities. Although this wasn’t popular, using the software I could explain just why it wasn’t possible to complete certain work in the time allotted. It enabled us to explain the duration of different activities. Then we could work with them to create a plan – such as how to take those toilets out of action and create temporary access routes when necessary.”

No school holiday for the crew

The team may have hoped for a period of quiet during the creation of the substructure and superstructure but the location presented some additional challenges. Site access was shared not only with local residents but an elderly care home situated immediately next to the school. Colin had to very carefully schedule deliveries via a route that was used not only for canteen deliveries but also that formed part of the care home’s emergency exit route – meaning it had



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to be clear at all times, and the timing of the delivery of major items such as the timber frame was a precision challenge.

Some essential activities were scheduled for the school holidays, which would provide a two week window for works that couldn't be carried out with the school in live operation. Removing two sections of the existing roof was originally planned for that time – but thanks to some front end delays, due to underground services issues and bad weather, it became impossible to remove and replace them ready for the school to reopen. Colin tested alternatives and identified a route that enabled the roofing to stay in place.

Unforeseen delays are inevitable on most builds – and at Norbury Manor Primary these came in the form of previously unknown underground services diversions and ground water issues. Powerproject was used to help Colin re-plan: “Through looking at the programme and understanding the build and its constraints, I could see where float was built in and time could be recovered. I was able to speak to each key supply chain contractor about their remaining work, and discuss the resources I felt were required - for example, when we did the dry lining we flooded the building with dry liners. As a result, we were able to catch up the full two weeks' delay that ground issues had caused.”

Final report card

Powerproject was used in some smart ways on this build – especially during the refurbishment works. Colin recounted: “Although there was a single bar in the original contract programme for refurbishment works, I became concerned about the amount of refurb work that would need to be completed during the final six weeks. Using Powerproject I broke it all down into much greater depth, and reached the conclusion that we needed to reduce



the scope of refurb work. The client also needed savings, and so I was able to suggest areas of the refurbishment to reduce. This approach enables you to actually see the risks you have, and find opportunities.” As a result of this, Colin worked out that much of the flooring, certain cupboards and other equipment could be saved rather than replaced, generating significant savings for the client at the same time as reducing the scope and complexity of the remaining portion of the programme.

Of course, Powerproject wasn't the only key to success – because, as the CMYA judges noted, this was largely down to Colin's organisational and social skills. No software programme could have

conceived the role that a donated Bingo machine might play in maintaining excellent relations with a nearby elderly care home.

However, having a robust and powerful planning tool enabled this strong organiser to stay firmly on top of the challenges. Colin echoed this: “Although I had zero experience with Powerproject before this project, once I had my programme set up it was very easy to use for resequencing and reporting. It has lots of really useful features like resourcing and commercial reporting. I would use the percentages complete to report to the client, and to discuss valuations with subcontractors, using the programme drop bar.”

He finished by saying: “Powerproject is the standard planning tool for much of Bouygues UK – and now I have had experience with it I want to find out more about what it can do. Personally I find it simple to use, very clear, and it enables you to focus in on the specifics within a complex programme to develop them or reschedule key areas. I found it very useful, and will definitely be using it going forward.”

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