

Project Profile:
Discovery Academy,
Stoke-on-Trent



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| Project | Discovery Academy - Part of Stoke-on-Trent's £250m Building Schools for the Future (BSF) programme |
| Location | Stoke-on-Trent |
| Client | Wates Group |
| Sector | education – large, new-build school for up to 1,200 pupils |
| Size | main school building: 11,000 sq m, two storeys |
| Completion | autumn 2013 |

Wates & SIG plc

SIG plc has worked closely with Wates Group for a number of years, supporting the main contractor on major construction projects up and down the country. The relationship between the two companies is one that goes beyond what would normally be expected, with Wates relying on SIG for more than just the supply of key construction products. Wates rather draws on the expertise and technical knowledge of the teams at SIG to identify innovative solutions which delivering cost-savings and performance improvements wherever possible.



This partnership was cemented in September 2011 when one of SIG's senior executives – Regional Sales Director Richard Graves – was appointed to the unique role of joint business partner, working on behalf of both companies. Based full-time at the Wates head office in Leatherhead, Richard works directly with Wates' site teams to identify where savings can be achieved across various projects and seek out efficiencies for both companies.

The Project



SIG became involved in the Discovery Academy project at a late stage to review the specification for the building's roofing system. The system was unusual in that it would omit the use of a screed, and instead mechanically fix the insulation and single ply membrane direct to the pre-cast concrete beams that had been laid at a 1:40 fall.

The project team at Wates had already identified potential roofing products. However, with the unconventional configuration of the roofing system, they would need complete certainty that the products would work in tandem to deliver the required performances. Wates therefore asked SIG Design & Technology – SIG plc's flat roofing and specification experts – to review the design and clarify whether the initial specification would be up to the job.

A Value Engineering Solution



Having had experience of working on a project using a similar system, SIG Design & Technology was quick to identify that the main challenge of using a roofing system of this type lies both in specifying the right individual products, and in understanding how those products would perform together. This meant investigating the tolerances and performance criteria of each element of the system –

insulation, fixings, waterproofing and, most importantly, the precast concrete planks – before the project went ahead.

From the start of the project, SIG Design & Technology worked closely with the manufacturer of the concrete beams to agree accurate tolerances for pull out and fixing positions, and also with insulation manufacturers to determine the best product – namely one which could be fixed directly to the concrete beams while still delivering the necessary acoustic performance and U-values. SIG Design & Technology was then able to identify the most appropriate fixing, and carry out accurate pullout tests and wind uplift calculations to ensure the long term integrity of the roof system.

Armed with this information, SIG Design & Technology was able to propose to Wates a new specification for the roofing system which met the architect's designs and satisfied performance requirements, whilst making a significant cost saving compared to the original specification.

Turning the Designs into Reality



Eager to ensure that contractors were quoting like-for-like, Wates decided to re-tender the project with SIG Design & Technology's value engineered solution. To support Wates during this process, SIG Design & Technology produced a complete set of tender documents for the new system specification, including CAD details and NBS specifications.

Furthermore, SIG Design & Technology's extensive contractor network, the Design And Technology Accredited Contractor (DATAC) scheme, provided a ready-made route for Wates to source suitable installers for the specified system. From the 267 contractors listed on the DATAC network, SIG Design & Technology and Wates were able to identify eight accredited contractors and ensure price competitiveness across the various product packages.

SIG Design & Technology's business development manager, Steve Scottorn, explains the value of DATAC to clients such as Wates:

“To qualify for the scheme, contractors must have an exceptional knowledge of single ply roofing systems and a proven successful track record for installing them. DATAC member companies have to provide evidence that they hold the correct level and type of public and employee liability insurance, and sign a deed of indemnity. Their operatives have to carry a current licence which is issued following attending the SIG Design & Technology training centre in Shepshed, Leicestershire, and then successfully demonstrating a high level of competence.”

“For clients, this gives added peace of mind that any DATAC-licensed contractor is going to be not just adequate, but will install products to the highest possible standard, thus guaranteeing its performance.”

UK’s Only Workmanship Warranty

SIG Design & Technology is so confident in the expertise of its project team and the quality of its DATAC-licensed contractors that it offers clients a warranty covering workmanship as well as the products themselves – the only one in the UK to do so. With the warranty in place at Discovery Academy, SIG Design & Technology also provided weekly site visits to monitor the installation process, and provided comprehensive reports to Wates following each inspection.



At Discovery Academy, this gave Wates the reassurance that the product was the right spec, and that it would be correctly installed. Steve Scottorn explains the importance of this guarantee:

“Correct installation is as important as the product chosen when it comes to guaranteeing performance. Because we trust in the knowledge and ability of our DATAC contractors, we can offer this warranty and give clients the peace of mind that the product will always do as required.”

As a result of the success of the Discovery Academy project, Wates has now engaged SIG Design & Technology on 12 further projects where the team will be providing open, impartial design input and technical expertise to solve similar specification challenges, with the chosen solutions supported by the most comprehensive warranty on the market.

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