



Awards 2014 Case Study

Special Recognition

Innovation Award

Read Construction Holdings Ltd

As a regional SME, Read Construction is perhaps an unlikely champion of the state-of-the-art technology that is rapidly changing the design and build process.



But in the past three years, not only have staff at the Brymbo-based company become converts to the benefits of Building Information Modelling (BIM), but they have also been instrumental in demystifying the concept for clients and other SMEs in Wales.

The team's commitment to collaborative working, passion and innovative use of BIM on the new Shotton Amalgamated Primary School, won them a 'Special Recognition Award' for innovation from Constructing Excellence in Wales.

The CEW judges acknowledged the brave step for an SME to embrace the principles of new working methods. "They are clearly passionate towards building integration and sharing of work process changes, and this openness to sharing information and experience is a breath of fresh air that should be recognised," they said.

Read Construction, which employs 56 staff and has an annual turnover of £14m, states its core value as 'delivering best practice through continuous improvement' with the aim of delivering exceptional end user and client focused service. The company has been working towards achieving BIM Level 2 compliance.

So, when the opportunity to tender for the Shotton school development arose, they decided to offer, as their 'added value' component, BIM training and a flavour of the benefits of BIM, by modelling an element of the project to client Flintshire County Council.

Once appointed as principle contractor, alongside Lovelock Mitchell Architects who have been using BIM as their principle design platform since 2008, Read brought in a BIM specialist to train the client and their in-house design team. Partners who were part of the early engagement process were also included.

With few client led opportunities to exploit BIM, Read has had to be proactive in getting it onto the agenda. "We engineered this opportunity," said Alex Read, "BIM isn't yet on our clients' radars. If clients don't ask when going out to tender, they will still get 2D models when it now takes relatively little extra work to get an integrated multi-functional model

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that will reap far more rewards. Clients need to ask for BIM aided design. It adds enormous value to them and end users.”

This was extensively demonstrated by the Shotton school project, which has also been granted CEW Exemplar status for its use of BIM. Read had previously worked with FCC and understood that it was a forward thinking organisation. They and the rest of the partnering core group made a collective decision to re-model the entire project and deliver as much of the scheme as permissible to BIM level 2. They reconciled the early inefficiencies of conversion from 2D to 3D and BIM with efficient design review, savings through clash detection and model validation, improved construction information management and fully detailed handover information.

As a result of the BIM technology, Read was able to commission a first person perspective, interactive walk through of the proposed site and a physical model was built using 3D technology. This made a complicated scheme easily accessible to all stakeholders, from pupils to planners, and resulted in zero objections despite its prominent position and close proximity to housing.

Other benefits included considerable delivery savings not just against target cost but also against a previous similar sized scheme delivered by the parties. A post planning requirement to increase the capacity of the school by 60 places was easily and rapidly accommodated, without the need to defer planning or affect the construction programme. And, it allowed for a direct digital bill of quantity production to allow rapid and accurate cost appraisal and cost plan finalisation.

Whilst BIM can still be considered to be in its infancy as far as its potential is concerned, it is not simply a fad that is going to disappear and SMEs are lagging behind their bigger counterparts in its adoption. To date, most seminars on the subject focus on major schemes, such as the £100m Ministry of Justice development, which serves to make SMEs believe it isn't for them, explains Alex.

As a step to rectifying this preconception, Read Construction is in the process of building a body of evidence, based on Shotton School and a £400,000 project that they have completed with BIM aided design. In it, they aim to demonstrate that the process can be scaled down and still achieve savings. He is adamant that the capital investment in new software and initial training is no more than updating existing software, and you then get the benefit of resultant cost savings on project delivery. He is also keen that they should not be 'bamboozled' by the number of BIM enabled software products on the market which he feels are an unnecessary distraction.



“The supply chain just needs to slightly vary the way they handle information and that is why collaboration and communication are so crucial in moving forward with this new way of working, which will undoubtedly become standard,” said Alex.

It is clear that Read Construction is a pioneer in evidencing that BIM is attainable by all, irrespective of size of project or individual organisation. Rather than being viewed as a barrier to the continued delivery of projects throughout Wales by indigenous regional SMEs and their supply chain, the company has demonstrated that BIM process can be embraced without significant burden to the benefit of all stakeholders. The message is clear: if you are not part of the steam roller, you are part of the road, so get on board now!