

CASE STUDY

Urban regeneration using collaboration technology

Crest Nicholson, Birmingham City Council and Optima are engaged in an ongoing 10-year urban redevelopment programme in central Birmingham. As the programme would provide considerable information management challenges, Crest Nicholson opted to use BIW's web-based collaboration platform. Early deployment and training helped ensure rapid and widespread adoption of the technology, not only across the core team and supporting subcontractors and suppliers, but - increasingly - to other programme stake-holders such as solicitors and council planners.

Key benefits

- **Less production, copying and distribution of paper during design phase**
- **Faster drawing review and finalisation**
- **Better communication (even non-CAD users can view and comment on drawings)**
- **Fewer drawing revisions**
- **Better project discipline - and fewer excuses (no more "it's in the post")**
- **More efficient centralised drawing register**
- **More collaboration (1000s of drawing comments now made online)**
- **Wider collaboration (eg: extending involvement to lawyers, local planning dept, etc)**

Background

In an innovative public-private joint venture, Crest Nicholson plc, Birmingham City Council and social landlord Optima Community Association are engaged in a 10-year urban redevelopment programme covering a large inner city area south of Birmingham city centre. The Park Central scheme will ultimately provide 1384 apartments, 260 houses, 300,000 sq ft of commercial space (including retail, offices and a hotel), an 8-acre park, plus all associated infrastructure. The phased development is due to finish in 2012.

The core team comprises contractor Crest Nicholson, architect Tibbalds TM2, civil and geotechnical engineer Bullens, structural engineer Curtins and landscape engineer Lovejoy. This team is augmented by various mechanical and electrical, acoustics and environmental consultants, plus several subcontractors with design roles (steelwork, roofing, etc).

The project director, Stephen Boid, wanted to ensure efficient management of information relating to the programme. Key issues for him included:

- accurate revision control so that everybody was working with the latest versions of drawings and documents
- efficient reproduction, distribution, storage and retrieval of information
- co-ordination of comments, etc from a multi-disciplinary team

Previous experience in running large projects using email had convinced Boid that email was not a viable solution. Whatever was used needed to be secure, robust, quick to deploy, inexpensive for users to adopt, and easy to access regardless of whether the user worked for Crest Nicholson or one of its supply chain partners.



The approach

Drawing on Crest Nicholson's previous experience of using BIW's web-based collaboration platform, BIW Information Channel on a scheme at Portishead, near Bristol, Boid decided that the same technology should be employed at Park Central at the earliest possible opportunity.

BIW provided an initial period of three days' training for Crest Nicholson's design manager (nominated to be the 'hub' of the information exchange community), and a further one-day training workshop for key consultants. Protocols for information exchange (eg: drawing numbering conventions) were also agreed. Through these processes, the core participants gained sufficient knowledge and expertise to then train other users in their respective businesses. BIW also provided a practice environment - a 'sandpit' - in which users could experiment with and learn about the functionality of the BIW system.

The Park Central Channel went 'live' at an early stage in the programme and was soon being intensively used by all consultants to exchange, and provide feedback on, all design information. In the first year, over 2000 drawings were published to the system.

Once information has been approved for construction by Crest Nicholson, the relevant drawings and other documentation is routed via the BIW system to ServicePoint for paper issue (subcontractors still tended to prefer paper and few had adequate plotters to print out the information themselves; however, as the programme progresses, Boid expects Crest Nicholson to start distributing information for construction electronically).

The system is also used by the Council's planning department and by the various firms of solicitors involved in reviewing contracts, leases, etc.

The programme team is beginning to use BIW Information Channel: Standards to apply standard information across all phases of Park Central, and is looking to extend use of the Channel to cover other processes such as tendering.

Management issues

Most users had not used a collaboration system before and so tended to prefer paper-based information, particularly, for example, if their work involved taking design information out on site. Crest Nicholson provided a PC and plotting facilities on-site so that visiting team members could print off the latest information.

At an early stage, Crest Nicholson encouraged team members to commit as much information about the project to the system as possible. This resulted in fewer requests for information ("it's on the BIW") and increased transparency, leading to more efficient and productive design team meetings. Tasks were not necessarily completed faster, but a missed deadline would be apparent to every participant.

Key lessons

- Focus on the people issues - it's 80% people and processes, only 20% technology (people collaborate, not systems)
- Keep the system transparent - Crest Nicholson encouraged a high degree of openness so that team members could view everything except the most confidential documentation; peer pressure then helps keep the project on track.
- Train the trainers - effective deployment, training and support are vital, and it helps to build up local experts in using the system.
- Recognise there may be connectivity issues - some users may need to upgrade their telecommunications systems to publish large volumes of information quickly.

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