

Case Study IT041



Using a project extranet to support partnering in a prime contract

The achievement

Set to be a model for future MOD schemes, the £41 million Andover North Site Redevelopment project was one of the first prime contracts let in the UK, and the first one to be completed. Proposals to use web-based communication technologies helped Citex, now Bucknall Austin, win the contract. By cutting use of paper-based information and speeding up team processes, the 'extranet' system supported the culture of transparency and openness that was vital to successful completion of the project. The extranet also provided a reference tool for future operation and maintenance purposes. The project won the BIFM PFI/PPP project of the year award 2002.

Key benefits

- ★ Improved team integration through a single, shared source of the latest documents, drawings and other information
- ★ More transparency, and better accountability by provision of a full audit trail detailing who accessed what information and when
- ★ Cost and time savings in printing, copying, distribution, storage and retrieval of information
- ★ Replacement of large paper-based archive of as-built information with searchable electronic archive for operation and maintenance requirements

Background

The MOD has taken a lead in adopting partnering-type approaches – such as ‘prime contracting’ – to its projects. A Prime Contractor takes single, overall responsibility for the management and delivery of a project. Responsibilities include selection and management of the supply chain, design co-ordination, planning, cost control and working with the client to ensure a fit-for-purpose outcome.

The Andover North Site Redevelopment (ANSR), providing new facilities for the Defence Logistics Organisation (DLO), was procured as a Prime Contract. A former air-base, the 34-acre ANSR provided 26,000m² of new accommodation. The successful contractor would also be responsible for post-construction maintenance of the structures and building services for six-and-a-half years, so design durability and reduced whole life costs were key elements of the brief.

Citex Prime Solutions (now Bucknall Prime Solutions) was awarded the prime contract in January 2001, and construction started in April 2001. There was a single contract between the MOD and Citex, who, in turn, agreed contracts with each member of a supply chain. Integral members of the team were staff from the DLO, representing the client.

The approach

From the outset, great emphasis was placed on working closely together in an atmosphere of honesty, trust and openness. A partnering charter was signed by all team members.

Key team members were co-located in offices on site at Andover, but others continued to work from other locations. To support the partnering culture of openness and transparency, the team agreed to use a web-based collaboration system, a project extranet, to provide a communication platform to share and exchange all documents, drawings and other information relating to the project. This agreement was written into a key document, the project execution plan.

BIW Information Channel, from BIW Technologies, makes data available to every team member through a secure, project-specific website – accessible by authorised individuals from any location twenty-four hours a day. Users are able to create, and have access to, information on the site including drawings, specifications, comments, notes of meetings, schedules, photographs, and team member details. The system provides a transparent, single repository of the most up-to-date information, and all user activity is tracked and recorded, providing an audit trail.

As a substantial amount of design work had already been undertaken prior to the contract, the extranet was populated with the latest revisions of all drawings and relevant documents. Simultaneously, each key user attended a two-day course that equipped them to train other users within their company. To accommodate team changes and additions as the project progressed, additional training days were provided at appropriate intervals throughout the project.

The site offices were equipped with a network, a 2Mb MegaStream telecoms connection (this was ‘throttled back’ to a lower bandwidth, but gave more than adequate

connectivity), plotters and a shared CAD facility. All other team members could use their existing company networks and internet connections to access the system. The extranet’s security was enhanced by creating it as a ‘HTTPS’ site (a secure server certificate provides 128-bit high security level encryption). So that the MOD’s own secure network would not be compromised, MOD staff accessed the extranet via a dedicated PC.

The extranet (the ‘Channel’) was opened in February 2001, and as training extended across the project team, usage grew rapidly, averaging more than 2000 log-ins every month throughout the summer. One factor in this rapid adoption was that design work continued in parallel with construction for some months, so the Channel became a vital conduit between designers, constructors and suppliers. In 20 months, there were over 23,600 system log-ins. 1733 documents and 4072 drawings were published, over 1300 comments on these were made, and all were accessible to over 170 users from 27 organisations.

Instead of designers distributing multiple packages of drawings, drawings were published once – to the Channel – and individuals could then view, comment upon and, if necessary, print off just the drawings or details they needed. This drastically cut the volume of paperwork produced, distributed and stored. Team feedback suggests this reduction was also partly due to the partnering ethos as the absence of an adversarial culture removed the need for the many contract letters found on more traditional projects. Information could be found more readily. As well as managing information processes during design and construction, the extranet created an efficiently searchable electronic archive of all information relating to the buildings, for future operation and maintenance purposes.

Key lessons

- ‘Buy-in’ to an extranet needs to be actively encouraged by team leaders, not least the client. Its use should be written into project processes and protocols
- Implement the extranet system as early as possible to encourage collaboration during design.
- Train the trainers – they can become an effective local source of help for other users within a company
- Training is essential throughout the project as new members join the team.

Further Information

For further information on other case study summaries visit www.itcbp.org.uk or contact:

IT Construction Best Practice
Davis Langdon Consultancy
FREEPOST LON14305, London WC2B 6BR
Fax: 020 7379 3030
Email: itcbp@davislangdon-uk.com
Web: www.itcbp.org.uk

IT Construction Best Practice (ITCBP) supports companies in the construction sector in making better use of IT to improve their business and management practices. *ITCBP* is a service of the government-funded Construction Best Practice programme within the joint industry and government Rethinking Construction campaign.

