

Case Study:

Improving contract management using the internet

IT050 1006



The achievement

A global business providing management and consultancy services to the built and natural environment, WSP Group plc, used a web-based contract change management system (CCM) to assist with the contract management, supervision and administration of the construction of the Highways Agency's Eastern Regional Control Centre (ERCC) at South Mimms.

The CCM system greatly improved contract administration efficiency and provided the project team with remote access to the overall financial state of the contract linked to changes and compensation events on a real time basis. This was particularly beneficial for the client's project sponsor, design team and other stakeholders who were remote from the construction site.

Key benefits

- Real time, remote access to administration of the contract
- Improved contract administration efficiency – reduction in site resource
- Compliance with client's open book accounting requirements
- Secure and resilient web-based system with regular back-up
- Flexible access arrangements for project stakeholders
- An environmentally-friendly paperless system

Background

The project was to design and build a new control centre for the Highways Agency to allow them to realise their role as network operator for the Eastern region of the motorway and trunk road network. The control centre, located adjacent to the M25/A1(M) junction, contains a control room, major incident room and dedicated equipment room and acts as a base for the Highways Agency new traffic officers. Using an extensive network of motorway signals, message signs and CCTV, the control room liaises with on-road patrols (Highways Agency traffic officers), police and other stakeholders to manage the network to keep traffic moving.

The project was implemented using a quality-assessed procurement process using ECC option C with early contractor involvement (ECI), partnering and processes such as quantitative scheduled risk analysis and contract change management. The project value was £7.5 million and was completed July 2005 with a 'go-live' date of October 2005. Project management and engineering design was provided by WSP Group, and construction carried out by May Gurney. The architect was AWW, and the quantity surveyor was Gardiner & Theobald.

The ERCC was not a run-of-the-mill highways project for the client, a motorway network operator experienced in road renewals, improvements and maintenance rather than building projects. It involved a wide variety of contractors who were more familiar with the JCT standard form of building contract. It was therefore imperative that a high degree of contract control was exercised by the project management team.

WSP wanted stakeholders such as internal auditors and the project sponsor, to have a clear understanding of the contract's progress on site in terms of cost, change or variation without the need to attend site meetings or review large paper files. It was critical that change control was efficiently and effectively managed to improve partnering and control project outturn.

The approach

The CCM system was particularly appealing to WSP's project manager as it was web-based, simple to use, and could support a number of users. The system had been specifically developed to manage and control the administrative processes and procedures required by the ECC contract, but was flexible enough to meet certain client requirements i.e. sectional completion of the building and minor changes to contract clauses. The Internet-based CCM system had been used on other WSP projects and the project manager was aware of its strengths from internal feedback and attending a Highways Agency's seminar where the benefits of the system had been presented.

The CCM system is provided by Management Process Systems (MPS) in partnership with CSF, who provide the IT infrastructure through a managed service. The systems and infrastructure design supports an on-demand requirement where business processes are integrated both across the enterprise, and with key partners, suppliers and clients. The application and associated databases reside on a fully-managed IBM e-server configuration in a data centre hosted by CSF. CCM supports the NEC/ECC form of contract with software designed and developed by MPS using IBM middleware.

During early 2004, the WSP project manager contacted MPS, and a full presentation and demonstration was carried out for the project team in April 2004. Implementation and training were carried out during May and June of 2004. Initially, activity schedules for preliminaries, demolition, piling, groundworks and steelwork packages were loaded on the system. Additional packages were added to CCM as they were agreed by the project team. The system was used to manage key contract documents such as early warnings (a total of 230), project managers instructions (235), compensation events (228), quotations (193), and implementations (161) as well as a variety of contract communications such as programme submission and acceptance. All notifications were created and issued by key users from WSP and May Gurney in a collaborative environment over the web. Generation of agreed accounts was more efficient and speedier, and much of the final account was agreed soon after completion of the main works.

Benefits achieved

- Real time, remote access to view the financial state of the contract, contract changes and variations
- Efficient, effective and improved control of contract change
- Easy to use, secure and resilient system
- Reduced contract administrative burden - reduction in site resources
- Speedy agreement of final account
- Improved contract change management, and compliance
- Reduced costs and risk

Key Lessons

Any aspect of good project management such as change management needs the right combination of people, processes, systems and leadership. The people aspect is the most important, with strong leadership essential for improved contract management.

First class processes and systems cannot be introduced effectively into disparate project teams without a good understanding of how people react to change when faced with new practices.

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