

The Channel Tunnel Rail Link. An MPA Seminar held at the Institution of Civil Engineers, One Great George Street, London in November 1999.

MPA events are confidential. They provide a forum where someone involved in a major project can tell it the way it was. This summary is available to both members and non-members, and care has been taken to ensure that its contents do not breach confidentiality. This account cannot, therefore, do full justice to the event, so members please read the full proceedings when you receive them. Best of all, members, come to the events. Non-members, think about joining!

Participants

AEA Technology Rail, Aukett Associates, Balfour Beatty Major Projects, Bechtel Ltd, Blue Circle Industries plc, Bovis Program Management, British Energy Generation Ltd, British Trade International, Brown & Root Ltd, Capita Property Services, Costain Group Plc, Denton Hall, Department of the Environment, Transport and the Regions, European Investment Bank, Faithful & Gould, Freshfields, George Corderoy & Co, Halcrow Group Ltd, Herbert Smith, High-Point Rendel Ltd, Imperial College, Kvaerner Construction Ltd, London & Continental Railways, MACE O'Brien Kreitzberg, Mott MacDonald, Mouchel, Ove Arup & Partners, PA Consulting Group, PricewaterhouseCoopers, Rail Link Engineering, Railtrack plc, Richard Oliver International, Scott Wilson Group, Sir Robert McAlpine Ltd, Skanska UK Ltd, SPRU, Sussex University, Taylor Woodrow Construction, Union Railways, Willis Corroon Construction Risks, WSP Group Plc

The Channel Tunnel Rail Link (CTRL), Britain's first major new railway for over a century, has had a long gestation. Work started on a draft Parliamentary bill in the 1980s, but after some false starts the enabling legislation—the Channel Tunnel Rail Link Act—was passed in 1996 and London & Continental Railways (LCR) was appointed concession holder after competitive bidding. The project was now under way. But not for long. Early in 1998 because of slower than anticipated growth of Eurostar business LCR announced it would not be able to finance the new railway on the basis envisaged in its contract with the government.

The will to keep the project alive, with LCR as the concession holder, was strong. A new scheme was therefore devised with additional private sector funding and with the Government providing guarantees and grants.

To make the project manageable, CTRL was split into two sections, to be built consecutively. When complete CTRL will half journey times between the Channel Tunnel and central London. High-speed domestic services will benefit Kent commuters. And the new high-speed connections will help to stimulate the regeneration of east London and the Thames gateway. The budget for CTRL is £5.2 billion.

In October 2000 all the contracts for section 1 had been let and 50 per cent of the work completed on time and on budget. In December 2000, some advance works of section 2 are under way, and the main construction work scheduled to follow in mid-2001.

Lessons Learnt so far...

- Aim from the start to be a ground-setting major project, with the objective of delivering on time, within budget and to a high quality standard.
- Consider using a contract form based on target price estimates. That means that the difference between the target and actual cost is shared between the client and the contractor.
- Consider also using a contract that adopts self-certification by the contractor. On CTRL the cost of correcting a defect which a contractor discloses is an allowable cost; if it is spotted by the client, it is not. This was a major departure from past practices.
- Establish effective change control, with no changes to the brief being allowed without the managing director's sanction. Balance that by being flexible and willing to take new ideas and technology on board after careful examination.

Facts and Figures

Distance

Channel Tunnel to St Pancras 109km

CTRL journey times

St Pancras to Channel Tunnel (complete link) 31 mins

Budget

Complete link £5.2 billion

Enabling legislation

Channel Tunnel Rail Link Act 1996

- Plan project meticulously as that is fundamental to any major project.
- Leave sufficient time between letting the contracts and the actual start up of work for value engineering.
- Make sure you have a good safety culture. Pay more than lip service to safety by ensuring all parties bring forward any lessons learned from their previous contracts and by retraining staff regularly.
- Pay particular attention to handover and hand back: this is an especially sensitive area for transportation projects as late hand back may involve penalties. When planning this means a project manager should find out how things will be done, in detail, and then ask what the alternatives are if a particular event or events do not happen.
- Do not underestimate the importance of resolving environmental issues before starting a project.
- Avoid a sour partnership by finding a way of *working together* to resolve any problems arising on the project.

The Players

London & Continental Railways, concession holder, appointed in 1996.

Union Railways (South), client organization and subsidiary of LCR, created in the 1999 restructuring, responsible for southern section (Section 1).

Union Railways (North), as above, responsible for the northern section (Section 2).

Railtrack, ultimate leaseholder and operator of Section 1 (and potentially Section 2), which has effective control of URS.

Rail Link Engineering (joint venture of Bechtel, Ove Arup, Halcrow and Systra), responsible for the engineering, procurement and construction management of CTRL.

Government, contributing around 40 per cent of the cost of Section 1.

Mott Parsons Gibb, government project representative, with the role of ensuring that government interests are safeguarded.