

Appendix 17 – Options for the Form of Contract

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The main forms of contract which are available are:

- NEC3
- HA Design and Build
- ICE7
- ICE Target Cost
- JCT
- PPC 2000

New Engineering Contract – NEC3

Background to the NEC contract

The first edition of the NEC was published in 1993 and was developed as multi-disciplinary contract which can be used for engineering and construction work containing any or all of the traditional disciplines such as civil, electrical, mechanical and building work. It is now widely used across the UK building and construction sectors and it is likely that all leading UK suppliers will now have considerable experience in its use. The NEC was used on the CTRL project and was perceived by the industry as being a key factor in the successful delivery of the project.

There were three main objectives behind the development of the NEC – flexibility, clarity and simplicity and stimulus to good management.

The NEC3 is designed to be as flexible as possible and can be used across the range of traditional disciplines. It accommodates the Contractor having full, part or no design responsibility. It provides all current options for types of contract such as competitive fixed price tenders, target contracts, cost reimbursable contracts and management contracts. These options are discussed in more detail in

The NEC3 is written in ordinary language and the unconventional style initially raised concerns in some parts of the industry from people who were reluctant to move away from traditional legal drafting. The widespread use of NEC contracts now means that many more people in the industry are now familiar with the style of the contract and it is the other traditional forms of contract that are now looking dated and old-fashioned.

Probably the most important characteristic of the NEC3 is the stimulus it provides to good management practice. This aspect is founded on the proposition that foresighted, co-operative management of the interactions between the parties can reduce the risks inherent in construction and engineering work. Key features include early warning procedures, compensation events and the maintenance of the programme for the works.

NEC3 risk allocation

The approach in NEC3 is to allocate the risks in the project as fairly as possible and to support the most effective ways of managing the risks and minimising the cost consequences. The NEC3 incorporates a risk register which provides early warning of risks and provides transparency in how risks will be managed.

It has been suggested that the risk allocation in NEC3 is contractor friendly and that Clients should require Contractors to carry as many risks as possible. The consequence of this however, is that tender prices will either contain high risk premiums or that contracts will be won by suppliers with the best claims departments rather than those who are best at delivering successful projects.

NEC3 Culture

The NEC3 is a partnering contract in line with Achieving Excellence principles.

NEC3 Management and Communications

The NEC3 is set up to stimulate good management practices between the parties so as to manage risks effectively and minimise cost consequences. The Client needs to ensure that it has sufficient capable resources to manage the project. In practice however, the numbers involved should be no more than those required on any other well-managed contract regardless of the form of contract. There would be a need for a comprehensive training and development programme to ensure that Devon's project management team are fully equipped to deliver their roles and responsibilities in line with the NEC approach.

NEC3 Change Control and pricing procedures

The NEC3 requires early and prompt consideration of any matters which may affect the price paid by the Client. The contract does provide incentives the Contractor to minimise the actual costs.

NEC3 Contractual payment mechanism and performance incentives

The NEC3 provides 6 main options which are set out in Appendix C. The option most likely to deliver best value is the target cost approach. It would be possible to incorporate additional performance incentives proposed at the tender stage.

NEC3 Attractiveness to the Supply Chain

The NEC form of contract is now well known to UK based contractors and has proved to be attractive and deliver good results. All Highways Agency major projects contracts are based on the NEC.

HA Design and Build

The HA D&B contract has now been dropped by the HA as it was no longer delivering the certainty of price expected when it was launched in the mid-1990's. There have also been problems of quality being compromised as a result of unsustainable lump sums. The contract can work effectively but the risks of cost overruns and poor quality are significant. It is also likely that the use of the contract and the high tendering costs associated with it would deter potential contractors from bidding.

The contract was developed to achieve price certainty following the period of large cost overruns in the early 1990's. It sought to do this by transferring nearly all risk to the Contractor. The contract was based on Employer's Requirements and experience showed that errors and omissions or the need for changes resulted in claims for considerable additional costs. The initial contracts worked quite well but subsequent contracts had problems associated with poor quality and disputes on claims. On one contract costs increased by around 20% over the contract lump sum and there is an ongoing dispute on the need for remedial works.

ICE7

The first edition of the ICE Conditions of Contract was launched in December 1945. The 7th edition is based on the traditional pattern of Engineer-designed, Contractor-built Works with valuation by remeasurement. It has however, been revised and updated to try and take on board the findings of the Latham and Egan Reviews.

The revisions have been made to try and develop a more co-operative form of contract but the ICE Conditions are still closely associated by many in the industry with the adversarial relationships and the claims culture of the last decade. There are sufficient people remaining in the industry from that period who would relish the opportunity to revert back to a claims culture.

The allocation of risk is inflexible in its standard form. It would be possible to amend the contract to a target cost arrangement but the ICE has already done this in the form of the ICE Target Cost contract which is discussed below.

ICE Target Cost

The ICE Conditions of Contract Target Cost Version, First Edition was published in February 2006 and is therefore, a very new contract and there is little information on its use in practice. The contract

is based on the standard ICE approach of an Engineer design and the Contractor has no responsibility for the design or specification except as expressly provided in the contract.

The ICE promotes the contract as encouraging collaborative working in a spirit of mutual trust and the earlier involvement of the contractor in the development of the project. These potential benefits however, are not directly supported by the wording of the contract but would be delivered by the Employer and the Contractor adopting good management practice and a partnering culture.

On the face of it the ICE Target Cost contract looks very much like the standard ICE conditions adapted for payment to be made on the basis of a standard target cost approach. The opportunities for claims appear to be similar to the standard ICE contract except that in the Target Cost a successful claim would lead to the adjustment of the target rather than entitlement to payment. The valuation of any variation or claim arising from an Employer risk shall wherever possible be agreed before the work starts but this is not an essential requirement of the contract. This carries a high risk that the reliability of the latest estimate of the target price will fall behind the progress on the works which could lead to difficult commercial relationships.

The contract retains the traditional role of the independent Engineer who has authority to order any variation necessary for the completion of the works and any other desirable variation. The Engineer also has responsibility for determining entitlement to payment and establishing the valuation of variations and claims. The introduction of a third independent party into the partnership arrangement does sit comfortably with the desired objectives particularly as the Engineer's incentives are not aligned with the objectives of the Employer and the Contractor.

Overall, whilst it appears that the contract could be made to work successfully where the parties have established trust and good working relationships, probably in the context of a long-term relationship, it would be high risk to adopt this contract with newly formed partners. This risk will be present because at the start of the competition the outcome of the supplier selection procedure will not be known. It would also be a high risk to adopt this very new contract which has not yet been tested on a major project.

JCT

The JCT suite of contracts is generally associated with the building sector. The JCT is another contract with similarities to the ICE conditions and therefore, generally perceived as being prone to adversarial behaviours.

Over the last couple of years there has been an avalanche of new and revised JCT contracts. This included in 2005 a JCT Major Project Construction contract which provides for a high degree of risk transfer to the Contractor. There is however, very little evidence of its implementation on major projects to date and so it would be high risk to pilot its use on this project.

PPC2000

The PPC2000, first published in 2000 by the Association of Consulting Architects, describes itself as being "the first Standard Form Project Partnering Contract". Key features include the integration of the team under a single multi-party contract, mandatory pre-construction phase procedures and an extensive procedural framework that supports the partnering process.

The pre-construction procedures do not appear to be very pragmatic or deliverable in practice. The contract sets out twelve pre-conditions before the Contractor can commence on site. These include the full selection and involvement of supply chain specialists, the development of supply and construction processes and agreement on the project timetable which governs the activities of team members.

The PPC2000 is a bold step along the route to project partnering and more closely integrated project teams. It would be interesting to test the contract on a major single contract but it would be a major challenge to put in place the people and the procedures to administer a substantial number of these forms of contracts.

