THE TREATMENT OF RISK IN CONSTRUCTION CONTRACTS UNDER PFI/PPP

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In the U.K. the Private Finance Initiative (PFI) has not only had a fundamental effect on the way many construction projects are procured, but also upon the terms of contract under which the building works are let. There are some examples new standard forms appearing, for example those produced by the National Health Service and the Treasury. Comparison of two of these contracts - issued by the Private Finance Unit of NHS Estates and the Treasury Task Force Guidance- with the more 'traditional' contracts for design and construction (such as those produced by JCT and ICE) reveal considerable differences in the way certain issues are dealt with. Most important amongst these are design risks and liability for site conditions; the treatment of variations, delays, and claims; and the approach to Practical or Substantial Completion, and defects liability.

Keywords: contract, risk allocation, PFI, PPP.

INTRODUCTION

The Private Finance Initiative (PFI) has resulted in enormous changes in the way that the public sector operates. This has led to a significant modification and development of the way in which virtually every government department is run and the ongoing development of PFI principles in the broader arena of public-private sectors partnerships (PPPs) is affecting virtually every interface between the public and private in the context of infrastructure development. Whilst there are still some who believe that the PFI is a short-lived phenomenon, to date over £24 billion of deals have been signed (Lindrup and Godfrey, 2001) and there is no indication that this method of procurement will not continue for a considerable time.

There are a number of reasons for the introduction of PFI in the mid-1990s. It is worth remembering, in this context, that the basic premise of PFI – the leveraging of private money into public infrastructure works – is not new. The building of infrastructure works abroad on the Build-Own-Operate and the Build-Own-Operate Transfer structure has been in operation for many years. The PFI is, however, distinguished by its political context: at the heart of the procurement route is the notion that infrastructure projects formerly built by and in the hands of the public sector are now being "controlled" by the private sector for profit. However simplistic this may appear, it is an emotive topic with the general public.

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The background to the introduction of PFI in 1992 is of a steady decline in the quality and efficiency of public services virtually since the end of the Second World War allied with a dramatic drop in available revenue from the public purse. Since the end of the Second World War the dramatic rise in living standards has produced ever high demands on public expenditure in real terms. Public expenditure was curtailed when inflation ran out of control in the 1970s and early 1980s. This resulted in the introduction of cash limits across different blocks of private expenditure, amongst other things. At the same time, however, the introduction of Petroleum Revenue Taxes, principally from North Sea exploration, coupled with privatisation proceeds from the Thatcher government produced something of a bonanza for the government which in turn provided a buffer for public expenditure during the 1980s. However, by the beginning of the following decade the effects of this bonanza were beginning to fade very rapidly. In the 1990s it was clear that the Petroleum Revenue Taxes were beginning a long-term downward trend and that large scale privatisations were at an end. Allied with a continuing increase in the requirements of the social services budget was the gradual acceptance of the fact that the infrastructure maintenance/renewal requirements were increasing at a dramatic rate.

This tension between the limited opportunities to increase public sector income and ever greater demands on public expenditure was at the heart of the creation of the PFI in 1992. Added to this was deep concern over the legendary inefficiencies in public sector procurement and the belief that radically new structural solutions were refined.

In the construction context, further impetus for this change was highlighted by the findings of Constructing the Team (Latham, 1994), which identified that there was a long-held and rather cynical view that the most profitable method of conducting business under public sector contracts was to bid aggressively with a tightly designed specification. The contractor would then trust that the eventual outcome would differ sufficiently from that envisaged by the formal contract and that change orders (negotiated with a total lack of competitive pressure) would result in profitability. Hence, many public sector contracts were inefficient and frequently overran in terms of both time and costs. The solutions to these issues lay not in refining existing contractual structures but in taking a more radical approach.

Central to the delivery of a PFI project is the Project Agreement. This agreement is structured so that it requires the private sector to design, construct and maintain the relevant assets and to provide the services set out in the Agreement for the duration of the contract period (typically 25-30 years in the health sector, for example). The underlying ideological approach is, however, the provision of services not assets and it is this approach that colours the treatment of the risks transferred to the private sector in the construction element of the Project Agreement which is the subject of this paper. Broadly, whilst it is tempting to focus upon the building of the asset at the commencement of the project, in real terms the most significant stage is the concession period during which time the Facilities Management (FM) services are provided by the private sector company ("Project Co") to the public sector and it is the provision of these services which is central to the PFI structure. In many ways, the building of the asset is simply incidental to but necessary for the main object of the agreement; the provision of the services.

It is not the purpose of this paper to go into the structure of a PFI Project Agreement in detail but to concentrate on those elements relating to construction risk which will be transferred down into the building subcontract. It is sufficient to note at this stage

that because the driving ideology is "services, not assets" the private sector will construct the asset (for example, the hospital) at the beginning of the PFI but will not be paid by the private sector until the hospital is available (ready to be used by the public sector for the purposes for which it is intended). Consequently the private sector forward-funds the construction phase of the project and then is paid back (plus being paid for the provision of FM services to enable the public sector to carry out its function, plus profit) over the concession period. This payment is in a single sum, usually paid annually, known as the Unitary Charge.

If a PFI procurement route is to go ahead the public sector must demonstrate that the PFI route is better value for money than the publicly funded option. This results in the necessity to construct a public sector comparator demonstrating that that option would be more expensive. Given, however, that the government can always borrow money more cheaply than the private sector, a straight comparison of build and operate costs will usually result in the PFI option being more expensive. However, other elements have to be factored into the financial equations that lie at the heart of this stage of the process. One of these is the costing of the risks that have transferred from the public to the private sector. Because these risks, formerly assumed by the public sector, are now in the private sector's sphere, they can be valued and added into the private side of the equation. Thus, the concept of risk transfer is crucially important in a PFI deal.

The following is a review of the major construction risks transferred to Project Co which are in turn passed through to the building subcontractor. The building subcontract in the PFI project will always be a design and build/design and construct form given the necessity for the private sector to pass the design risk through to the building subcontractor. The building subcontract can either be a modified form of an existing standard form contract or a modified version of the Project Agreement. Both types of contract have been experienced by the author and both have their advantages and disadvantages.

METHOD

The following review will examine construction risks as they appear in both the standard form NHS contract issued in 2000 (National Health Service Executive, 2000) and Project Agreements agreed in the context of local authority PFI schemes based upon the guidance originally issued by the Treasury Task Force (TTF) (Treasury Taskforce, 1999). The author has reviewed a number of Project Agreements based upon the PFU and TTF forms and their associated building contracts.

These building contracts are then compared with standard form contracts, in particular the JCT and ICE forms, to examine the way in which the PFI building contracts have been "modified" when compared with their more "traditional" counterparts in the context of risk allocation. The particular focus of attention is the way in which the PFI contracts deal with what can be considered as common construction risks. These are considered in turn, under the headings *design risks*, *liability for site conditions, variations, Delay, Relief and Compensation Events, Practical or Substantial Completion,* and *Liability for defects.*

DESIGN RISKS

Under traditional building contracts, the allocation of design risk will be governed by the form of contract chosen. Traditional design and build/construct contracts will pass the risk of design wholly on to the contractor, who will then transfer the risk further

down the contractual chain to those subcontractors undertaking design work. There may be some element of the project where design risk is retained by the employer and often this is dealt with through the use of amendments to the contract or stand-alone design agreements between the employer and the contractor which allocate the design risk more precisely between the parties. As is well-known, a very common form of arrangement is for the architect to carry out initial design work for the employer and subsequently to be novated to the contractor before the building phase commences. Recent Court decisions have shown, however, that this route is not without its problems.

The responsibility for design risk is crucial in the context of a PFI scheme. A balance is to be drawn between the public sector ensuring that it gets what it wants without assuming any of the design risk itself. This usually resolves itself in the form of the public sector satisfying itself that the design is such that it will allow the public sector to carry out its functions - the services that it is to provide to the public. The public sector provides an output specification indicating that it requires a facility that will enable it to carry out its core services and the private sector then provides the solution. Structurally, this is broadly similar to the Employer's Requirements/Contractor's Proposals approach taken by most design and construct contracts.

The NHS standard form Project Agreement deals with design risk and the approval of the Trust in sub-clauses 17.6 to 17.8 and in Schedule 10, dealing with Reviewable Design Data as part of the overall review procedure. In addition, further guidance has been published by NHS Estates and the Department of Health in the form of a design protocol (Department of Health/NHS Estates, 2001).

The design protocol is intended to deal with the submission of detailed design during the bidding process prior to the financial and contractual close of the PFI deal. During this bidding process, bidders will be required to provide information as to their proposed solutions to the public sector requirements. It is anticipated that the majority of the design development process will in fact be completed at or around financial completion, certainly as regards key areas and representative areas for the remainder of the facility. The design protocol therefore identifies the nature and extent of the information that bidders to the project have to provide moving through each stage of the bidding process up to and including the selection of preferred bidder and then to financial and contractual close and thereafter. Schedule 10 then sets out the approvals process by the Trust and its implications: broadly, that approval by the Trust of any particular set of design criteria will only be in relation to its clinical functionality (that is the ability of the Trust to carry out its clinical services to the public) and no further. Thus the private sector retains the design risk and the Trust only accepts risk insofar as it relates to the carrying out of its clinical functions.

In practice, Project Co.'s design obligations will be stepped down into the building subcontract. It is common in the Project Agreement and the building subcontract for the building Contractor's liability for design to be limited to that of an appropriate professional designer so as to avoid the implication of a fitness for purpose liability on the Contractor's part. Other well-known examples of this are to be found in clause 2.5.1 of the JCT98 WCD contract (Joint Contracts Tribunal, 1998) and clause 8(2) of the ICE Design and Construct conditions (Institution of Civil Engineers, 1998).

The requirements of the PFI concerning the distinction between the public sector's core services and the private sector provision of FM services therefore results in an

allocation of design risk that produces a more complex provision than that usually found in standard form design and construct contracts.

The comparative complexity of the design sign off process in the NHS standard contract as compared to contracts based upon TTF guidance reflects a general trend in the treatment of construction elements in PFI Project Agreements: broadly speaking, the provision of a health facility such as a district general hospital will be more complex than the building or refurbishment of a school or a road or local authority office accommodation. This is particularly apparent in the variations provision, discussed below. A hospital is a complex building in itself and provides a web of interrelated services to the public all of which have to be taken into account. By comparison, the number of services that may be provided in a school and which may be transferred to the private sector are relatively few and the buildings themselves are, broadly speaking, less complex. This results in a less complicated contractual arrangement for the construction phase.

LIABILITY FOR SITE CONDITIONS

Clause 15 of the NHS standard form contract specifies that the condition of the Site is the private sector's responsibility and consequently the private sector is deemed to have carried out all necessary physical and geo-physical investigations. It should be noted, however, that the NHS standard form contract is based on the assumption that the project will take place on a greenfield site where there are no existing structures presently in use which will obstruct the carrying out of all the necessary ground investigation works. In reality, it is likely that these physical conditions will very seldom be found and, indeed, the opposite is more often the case: projects are often undertaken on existing operational sites where the PFI works are slotted into and between existing structures. As such, the scope for ground investigation may be limited. The footnote to clause 15 recognises that this may be the case and suggests that, to the extent that it is not practical for Project Co to investigate areas of the site for these reasons, the Trust should bear any additional cost arising out of unforeseen conditions. TTF based contracts seen by the author initially took a more restrictive approach, passing the entire responsibility for site conditions and unforeseen adverse physical conditions even occurring outside the boundaries of the site onto the private sector. To some degree, this position has been modified to an extent although it is still the case that the Project Co is expected to carry the majority of site condition risk.

Comparison with existing standard form building and engineering contracts is instructive. Adverse physical conditions and artificial obstructions are dealt with, for example, in clause 12 of the ICE Conditions of Contract which substantially transfers the risk away from the Contractor to the Employer in the event that the appropriate conditions are met. Similarly, clause 61 of the NEC/ECC standard form contracts permits recovery of costs and an equivalent extension of time in the event that unforeseen ground conditions or bad ground is established. The JCT standard form contract does not deal with this issue explicitly. In practice it is likely the Contractor would seek an instruction from the Employer which may result in the Contractor being able to claim an extension of time and associated costs. Strictly speaking, the risk of bad ground should be catered for as a provisional sum.

VARIATIONS

Traditional design and build/construct contracts provide a mechanism for the ordering and valuation of variations. The mechanism adopted in the PFI building sub-contract is similar to the traditional contracts although, as explained below, the ramifications of a variation in a PFI contract are more wide-ranging.

The distinction between the approach taken in the standard form NHS PFI contract and TTF-based contracts is most apparent in their treatment of variations. This arises out of the fact, mentioned briefly above, that a variation to works carried out at a hospital is likely to impact upon a far greater number of FM services than might be the case in, say, a school. Consequently, whilst both contracts provide for a relatively standard approach to notice procedures for variations, the equivalent provision in the NHS standard form contract (Schedule 22) is complex given that it deals with 3 potential types of variations – additional works, variations to existing works and variations to services – whereas TTF-based contracts tend to more straight forward. It is often the case that only the public sector can initiate a variation in any event and the impact of this variation must then be assessed in terms of time and money by the private sector prior to any agreement on the public sector's part that it can be implemented.

The treatment of variations in the context of PFI contracts reflects the manner in which variation provisions in more traditional contracts (JCT, ICE) have given way to the treatment of "compensation events" in a more holistic manner in the NEC/ECC contracts, where variations are one of a number of events which affect the onward progress of the contract and which have to be assessed in terms of their time and cost implications. This new approach is now familiar to users of the JCT contracts, where clause 12.4.2 of the standard form contract now includes a "quotation" based approach to variations referred to as Alternative A.

In a PFI building subcontract the net result may be very much the same but it is to be remembered that in the Project Agreement, any payment for variations initiated by the public sector will usually be by way of an adjustment to the Unitary Charge and not by direct payment to the public sector at that stage. However, the building subcontractor will not wait for payment and therefore the more traditional approach will be adopted at building subcontract level.

DELAY, RELIEF AND COMPENSATION EVENTS

The grounds for extension of time in the "traditional" JCT scheme encompass both neutral and employer-caused events, whilst the loss and expense clause relates to employer – caused events only. A similar distinction can be found in PFI Project Agreements and their building subcontracts between Relief Events and Compensation Events, although the grounds for relief and compensation tend to be narrower than those found in traditional design and build/construct contracts, reflecting perhaps the increased level of risk assured by the private sector in these circumstances.

Under clause 41 of the NHS PFI contract Delay Events are those events which delay completion of the works. Broadly, they relate to actions by the Trust for which both time and money can be awarded to Project Co together with "neutral" events such as *force majeure* and Relief Events (see below) or a relevant change in law, the risk of which is borne by the Trust. Because *force majeure* and Relief Events are considered to be neutral, compensation is not payable for them but an extension of time will be

granted. The notice procedure and requirements for provision of information by Project Co are not dissimilar to those found in many building and engineering contracts.

Relief Events, on the other hand, are largely neutral events which may apply either during the works phase or the FM concession period of the project. As the title indicates, these events if they apply afford relief from the consequences which would otherwise occur if an interruption of the services provided by Project Co took place (that is, no right or termination arises by reason of any failure by either party to perform its obligations to the extent that that failure occurs because of the occurrence of a relief event). Relief Events encompass matters such as fire, explosion, lightning, storm, tempest, failure by statutory undertakers, accidental loss or damage to the Works and/or the Facilities, blockade or embargo falling short of force majeure and so on.

It is indicated in a footnote to the contract that the Trust may wish to consider adding a specific ground relating to Project Co.'s inability to investigate site conditions fully. As stated above, relief events by their nature do not carry any compensation and yet the footnote to clause 15 discussed above anticipates that the Trust will pick up the financial consequences of any unforeseen conditions arising in these circumstances. This appears to be something of a contradiction. In practice it is probably down to the Trust to consider whether it wishes to pay compensation to the private sector or not should such conditions arise.

The position is broadly similar under TTF-based contracts, where a distinction is drawn between relief events and compensation events. Again, these clauses are generally passed down directly into the building contract, often linked to the requirement that the building contractor will obtain no greater relief or compensation than that afforded to Project Co although an additional ground may be added relating to any default by Project Co on a “domestic” matter not attributable to any default by the public sector employer.

PRACTICAL OR SUBSTANTIAL COMPLETION

Again, the mechanism adopted in the traditional design and build/construct contract is not dissimilar to that used in PFI building sub-contracts. In both cases, the granting of practical completion results in a significant change of responsibilities at site level. On traditional projects the employer will regain possession of the site and re-enter.

The signing off of the asset as practically complete is of crucial importance in a PFI contract: often, it is the point at which the payment of the Unitary Charge to Project Co commences and post-completion commissioning procedures begin. In addition to this, the usual consequences of practical completion on a traditional building project also follow: insurance requirements change, the contractor is required to give back possession of the site to Project Co and the employer and so on. In a PFI context, there is a significant risk issue of obvious importance relating to any subsequent patent or latent defects discovered in the asset.

For these reasons, the NHS standard form contract has developed the concept of the Independent Tester, an individual (or, in reality, more often a company) independent of either the public or private sector whose principal responsibility is to certify the asset as practically complete at the appropriate point[8]. The Independent Tester is appointed pursuant to clause 20 of the NHS standard form contract and in practice may be appointed either by Project Co with a collateral warranty provided by the

Independent Tester to the Trust or by both parties jointly. In the TTF-based contract, this individual is referred to as an "Independent Certifier" and fulfils the same basic functions. In practice, it is the author's experience that the funders also wish to obtain the benefit of a duty of care from the IT/IC and will do so either by requiring a collateral warranty or by being made a party to the appointment document itself (although not to the extent of actually wanting to contribute towards the fees).

The IT/IC role is rapidly becoming a standard function of most large multi-discipline consultancies who obviously will be suited to this job, not only by having the required professional skills but also the necessary insurance cover. The precise nature and extent of the involvement of the IT/IC will often depend upon the parties and the capital spend on the project – employing an IT/IC is not cheap given that most potential consultancies will wish to be involved on a regular, ongoing basis during the course of the building phase in order to have sufficient confidence to sign it off at practical completion. It is not unusual for the IT/IC also to act as the Funder's representative for due diligence purposes although the author questions whether this is in fact likely to lead to difficulties in practice in terms of potential conflicts of interest and confusion on site relating to precisely which role the consultant is performing at any particular time.

The IT/IC role is not translated into the building subcontract, which usually relies upon certification by the Employer (Project Co) in the usual way. This is, however, conditional upon certification by the IT/IC To this extent, the risk transfer that takes place at Project Agreement level is not replicated at building subcontract level which tends to reproduce the more traditional arrangements. Usually, clauses are added whereby the building contractor facilitates the performance of the IT/IC in the carrying out of his duties.

LIABILITY FOR DEFECTS

Traditional design and build/construct contracts provide that the contractor must return to site during the defects liability period (usually up to 12 months after the date of practical completion) to remedy any faults or defects which become apparent over this time. This requirement would not apply to faults caused by the employer himself.

The NHS standard form Project Agreement specifies that practical completion may be certified notwithstanding the fact that certain Snagging Matters are still outstanding. The definition of "Snagging Matters" equates to that traditionally found in building contracts – minor items of outstanding work which would not materially impair the Trust's use and enjoyment of the Facilities or the carrying out by the Trust of the Clinical Services or the performance of the FM Services by Project Co. There is, however, no specific reference to a defects liability period of the sort usually found in traditional design and construct contracts or to liability for any latent defects which may occur during the limitation period (anticipated to be 12 years given that the majority of Project Agreements would be executed under seal). It is suggested that this is, to some degree, an absence which should be rectified under the standard form NHS building contract.

Again, in the author's experience, building subcontracts based upon TTF Project Agreements contain common provisions relating to defects liability periods and, either explicitly or otherwise, liability for latent defects. This area is, of course, subject to common law and statute in any event, imposing a liability upon the building subcontractor for latent defects during the relevant limitation period unless

specifically otherwise excluded under the terms of the building subcontract. This is perhaps an interesting example of traditional building arrangements being more precisely defined than those found in the Project Agreement.

The above review has demonstrated the manner in which the standard risk allocation mechanism in traditional design and build/construct contracts is modified as a result of the PFI process and reflects the risk allocation prevalent in standard form NHS and TTF-based Project Agreements. It is a common theme in PFI Project Agreements that the private sector will take a greater degree of risk than was the case in more traditional public sector infrastructure developments.

CONCLUSION

The "services not assets" philosophy which drives the structure of the PFI Project Agreement and the overriding requirement of value for money provide drivers towards this increased private sector risk responsibility. Since its introduction in the early 1990s, the PFI has been a procurement system which the construction industry has had to accommodate. It is often said that, for the public sector, it is not a choice between a publicly funded hospital or a privately funded hospital but a choice between a PFI hospital and nothing at all. A similarly stark choice faces the construction sector: any building contractor who wishes to continue to be involved in public sector infrastructure work will have to adapt to the risk allocation in the PFI building subcontract and to plan accordingly. In many cases, this has meant the creation of companies which provide a one-stop shop: not only building services but also FM services, often allied with established relationships with funders. Indeed, it may be argued that PFI has been one of the driving forces behind the shift away from traditional contracting so that many of the former building contracting companies now wish to present themselves as service providers rather than builders[9].

It is, of course, difficult and unwise to predict the way in which the industry may develop but it may be interesting to see whether these developments herald a growing distinction between overall service providers and traditional building contractors who have taken the view that they do not wish to be come involved with the PFI if at all.

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