



UNESCO-NIGERIA TECHNICAL &  
VOCATIONAL EDUCATION  
REVITALISATION PROJECT-PHASE II



## **NATIONAL DIPLOMA IN QUANTITY SURVEYING**



**PRINCIPLES OF CONSTRUCTION ECONOMICS 2**

**YEAR 2- SE MESTER 2**

**THEORY**

**Version 1: December 2008**

## Week 1

- 1.0 Contract Procedure and Contractors Obligation.
- 1.1 Essential Elements to a Contract
- 1.2 Definition of a Contract
- 1.3 Definition of a Construction Contracts
- 1.4 Surveys of Standard Forms of Contracts
- 1.5 Standard Forms used in the Construction Industry
- 1.6 The Legal Framework under which Contracts Operate
- 1.7 The Agreement
  - 1.7.1 Proof of Acceptance
  - 1.7.2 Communication the Acceptance.
  - 1.7.3 Invitation to Treat
- 1.8 Considerations
- 1.9 Invalid Contracts – Duress and Undue Influence
  - 1.9.1 What is Duress?
    - 1.9.1.1 Case Law Examples
  - 1.9.2 What is Undue Influence
    - 1.9.2.1 Presumed Undue Influence

## Week 2

- 2.0 Contract Procedure and Contractors Obligation/ Shadow and Express Terms.
- 2.1 Contractor's Obligations Clause 2
- 2.2 Shadow and Express Terms
  - 2.2.1 Shadow Terms

## Week 3

- 3.0 Documents Forming the Contract - Articles Of Agreement
- 3.1 Contract Documents
- 3.2 Articles of Agreement
  - 3.2.2 Recitals
  - 3.2.3 Articles
  - 3.2.4 Attestation
- 2.3 Definition of Terms

## Week 4

- 4.0 Letter of Intent (Award)
- 4.1 Letter of Intent
- 4.2 The Legal Standing of 'Letter of Intent'
- 4.3 Examples on Letter of Intent using Seven Different Scenarios

## Week 5

- 4.0 Letter of Intent – Award (Cont'd)

## Week 6

- 5.0 Liquidated Damages
- 5.1 Liquidated Damages
  - 5.1.1 Jct Clause on Liquidated Damages 2.37
  - 5.1.2 Payment or Allowance Of Liquidated Damages

## Week 7

- 6.0 Architect's Certificate
- 6.1 Certificates
  - 6.1.1 Interim Certificate
  - 6.1.2 Statement of Retention
  - 6.1.3 Section Completion Certificate
  - 6.1.4 Statement of Partial Possession
  - 6.1.5 Notification of Revision to Completion Date
  - 6.1.6 Non Completion Certificate
  - 6.1.7 Certificate of Practical Completion
  - 6.1.8 Certificate of Making Good Defect
  - 6.1.9 Final Certificate

## Week 8

- 7.0 Extension of Time (Adjustment of Completion Date) and; Loss and Expense Claims
- 7.1 Extension of Time
- 7.2 Loss of Expense
  - 7.2.1 List of Matters
  - 7.2.2 Claims
  - 7.2.3 Assessment of Claim
- 7.3 Delays Caused by Events outside the Control of Either Parties

## Week 9

- 8.0 Fluctuations
- 8.1 Introductions
- 8.2 Factors That Influence The Decision To Include Fluctuation Provisions In The Contract
- 8.3 Procedures
- 8.3.1 Assessment by Analysis

#### Week 10

- 9.0 Final Account Procedures
- 9.1 Introductions
- 9.2 Valuations
- 9.3 Final Accounts
- 9.4 The Variation Account
- 9.4.1 Ordering of Variations
- 9.4.2 Valuation of Variations

#### Week 11

- 10.0 Contract Procedures - Valuation Procedures
- 10.1 Introduction
- 10.2 Frequency of Valuations
- 10.3 Importance of Valuation
- 10.4 Legal Issues – Negligence
- 10.5 Payment Procedure
- 10.5.1 Grounds to Withhold Payment
- 10.5.2 Rights to Set Off
- 10.5.3 Contractors Rights for Non-Payment
- 10.5.4 General Procedure
- 10.6 Constituent Parts of Valued Works

10.6.1 Valuing Measured Works

10.6.2 Valuing Preliminaries

10.6.3 Variations

10.6.4 Nominated Contractors

10.6.5 Nominated Suppliers

10.6.6 Unfixed Materials and goods

10.6.7 Provisional Sums

10.6.8 Retentions

10.6.9 Issuing the Certificates

Week 12

10.7 Daywork

10.7.1 Recording Daywork on Site

10.8 Adjustments of Provisional Quantities

10.8.1 Adjustment of Provisional Sums and Prime Cost Sums

10.9 Interim Valuations

10.9.1 Typical Interim Valuation

Week 13

10.10 Preparations of Interim Valuations

Week 14

10.11 Valuation Exercise

Week 15

11.0 Insurance and Bonds

11.1 Why Do Contractors Take Out Insurance?

11.3 Bonds

11.3.1 Types of Bonds

## **WEEK 1**

### **1.0 CONTRACT PROCEEDURE AND CONTRACTORS OBLIGATION.**

#### **1.1 Essential Elements to a Contract**

For a contract to be formed, the following aspects must exist:

1. Offer and acceptance of the offer (effectively agreement)
2. Consideration
3. Intention to create legal relations
4. There must be genuineness of consent by the parties to the terms of the contract
5. The parties must have the capacity to make the contract
6. The contract must not be contrary to public policy

#### **1.2 Definition of a Contract**

The most basic definition of a contract is

*“A legally binding, agreement made between two or more parties, by which rights are acquired by one or more to acts or forbearances on the part of the other or others”*

From the above definition we can identify several essential elements, these elements are as follows:

- *Legally binding:* Not all agreements are legally binding
- *Two or more parties:* For agreement there must be at least two parties

- *Rights are acquired* – legal rights must be acquired, someone must agree to complete part of the deal and someone else must agree to do something in return
- *Forbearances* – to forbear is to refrain from doing something; thus there must be a benefit to one party to have the other party promise not to do something.

### **1.3 Definition of a Construction Contracts**

Whilst this definition of a contract, does, for all intents and purposes provide a clear and simply understood definition of what a contract is, although it is generalised. Looking specifically at construction, the best definition of a contract, was provided in *Modern Engineering (Bristol) Ltd v Gilbert-Ash Northern [1974] AC 689*. Lord Diplock defined a building contract as:

*An entire contract for the sale of goods and work and labour for a lump sum price payable by instalments as the goods are delivered and the work done. Decisions have to be made from time to time about such essential matters as making variation orders, the expenditure of provisional sums and prime cost sums and extension of time for the carrying out of the work under the contract”*

### **1.4 Survey of Standard Forms of Contracts**

In the main, the construction industry uses standard forms of contract, as an alternative to drafting bespoke contracts for each project. Within the industry there is a large selection of standard forms available to the client including:

It is often the case that the selection of the contract will be based on:

- Move some risks from the client to the contractor depending on the arrangement chosen.
- Our task as professional advisers to the client is to choose the most advantageous procurement path for the project and client.



## **1.5 Standard Forms Used in the Construction Industry**

### JCT Main Forms

- JCT SBC 05
- Design & Build 05
- IFC 05
- Minor Works 05

### Other JCT contracts

- Management Contract 05
- Measured Term Contract
- Prime Cost Building Contract
- Collateral Warranties
- Construction Management
- Major Project
- Framework agreements
- Constructing Excellence
  
- Central Govt Forms
  - GC/Works/1 – Major works
  - GC/Works/2 – Minor works
  
- ICE Contract
- NEC Contracts
- Bespoke Contracts
- FIDIC Contract (International)

## **1.6 The Legal Framework under which Contracts Operate**

As already stated, contracts are formed within English law and as such, there are various aspects of law, which will apply to the contract.

- *Common Law (Tort Law)*

Common law is a body of law which began in medieval times and is now largely based on case law. In common law, three major aspects of the contract are recognised, namely:

1. Offer
2. Acceptance
3. Consideration

In reality, we could say that the actual formation of a contract is based in and covered by common law.

- *Statute Law*

Within contracts, the drafter must allow for various aspects of statute law, examples of statute law to be allowed for in a construction contract would include:

- Construction Design and Management Regulations 2007
- Unfair Contract Terms act 1977

- *Civil Law*

Civil law is really another version of common law, although under civil law, judges do not rely on absolute's but will rather start with abstract rules which will be then applied to the particular case they are hearing.

## **1.7 The Agreement**

In order to determine whether, in any given case, it is reasonable to infer the existence of an agreement, it has long been usual to employ the language of offer and acceptance. In other words, the court examines all the circumstances to see if the one party may be assumed to have made a firm "offer" and if the other may likewise be taken to have "accepted" that offer. These complementary ideas present a convenient method of analysing a situation, provided that they are not applied too literally and that facts are not sacrificed to phrases.

The first task of the claimant is to prove the presence of a definite offer made either to a particular person or, as in advertisements of rewards for services to be rendered, to the public at large. In the famous case of *Carlill v. Carbolic Smoke Ball Co.* it was strenuously argued that an effective offer cannot be made to the public at large. In that case:

**The defendants, who were the proprietors of a medical preparation called “the carbolic smoke ball,” issued an advertisement in which they offered to pay £100 to any person who succumbed to influenza after having used one of their smoke balls in specified manner and for a specified period. They added that they had deposited a sum of £1000 with their bankers “to show their sincerity”. The claimant, on the faith of the advertisement, bought and used the ball as prescribed, but succeeded in catching influenza. She sued for the £100.**

The defendants displayed the utmost ingenuity in their search for defences. They argued that the transaction was a bet within the meaning of Gaming Acts, that it was an illegal policy of insurance, that the advertisement was a mere “puff” never intended to create a binding obligation, that there was no offer to any particular person, and that, even if there were, the claimant had failed to notify her acceptance. The court of Appeal found no difficulty in rejecting these various pleas. Bowen, L.J., effectively destroyed the arguments that an offer cannot be made to world at large.

**“It was also said that the contract is made with all the world – that is, with everybody, and that you cannot contract with everybody. It is not a contract made with all the world. There is the fallacy of the argument. It is an offer made to all the world; and why should not an offer be made to all the world which is to ripen into a contract with anybody who comes forward and performs the condition? .....Although the offer is made to the world, the contract is made with that limited portion of the public who come forward and perform the condition on the faith of the advertisement”**

An offer, capable of being converted into an agreement by acceptance, must consist of definite promise to bind, provided that certain specified terms are accepted. Offeror must have completed his share in the formation of a contract by finally declaring his readiness to undertake an obligation upon certain conditions, leaving to the offeree the option of acceptance or refusal. He must not merely have been feeling his way towards an agreement, not merely initiating negotiations from which an agreement might or might not in time result. He must be prepared to implement his promise, if such is the wish of the other party. The distinction is sometimes expressed in judicial language by the contrast of an “offer” with that of an “invitation to treat.” Referring to the advertisement in the *Carlill* case, Bowen said:

**“It is not like cases in which you offer to negotiate, or you issue advertisements that you have got a stock of books to sell, or houses to let, in which case there is**

**no offer to be bound by any contract. Such advertisements are offers to negotiate – offers to receive offers – offers to chaffer.....”**

### **1.7.1 Proof of Acceptance**

Whether there has been an acceptance by one party of an offer made to him by the other may be collected from the words or documents that have passed between them and may be inferred from their conduct. The task of inferring an assent and of fixing the precise moment at which it may be said to have emerged is one of obvious difficulty, and particularly when the negotiations between the parties have covered a long period of time or are contained in protracted correspondence.

The tortuous process of discovery may be observed in the case of *Brogden v. Metropolitan Rail Co.*

**Brogden had for years supplied the defendant company with coal without a formal agreement. At length the parties decided to regularise their relations. The company’s agents sent a draft form of agreement to Brogden, and the latter, having inserted the name of an arbitrator in a space which had been left blank for this purpose, signed it and returned it, marked “approved”. The company’s agent put it in his desk and nothing further was done to complete its execution. Both parties acted thereafter on the strength of its terms, supplying and paying for the coal in accordance with its clauses, until a dispute arose between them and Brogden denied that any binding contract existed.**

The difficulty was to determine when, if ever, a mutual assent was to be found. It could not be argued that the return of the draft was an acceptance of the company’s offer, since Brogden, by inserting the name of an arbitrator, had added a new term, which the company had no opportunity of approving or rejecting. But assuming that the delivery of the documents by Brogden to the company, with the addition of the arbitrator’s name, was a final and definite offer to supply coal on the terms contained in it, when was that offer accepted? No further communication passed between the parties, and it was impossible to infer assent from the mere fact that the document remained without remark in the agent’s desk. On the other hand, the subsequent conduct of the parties was explicable only on the assumption that they mutually approved of the terms of the draft. The House of Lords held that a contract

came into existence either when the company ordered its first load of coal from Brodgen upon these terms or at least when Brodgen supplied it.

### **1.7.3 Communication the Acceptance.**

The acceptance of an offer must be unconditional and it must be communicated to the person who made the offer (in other words silence cannot be used to assume acceptance). In addition, when the acceptance is made, it must be under the same terms as the original offer. So based on this, the contract is not established until the other party has actually received information to that effect.

Unfortunately, this rule has an exception in common law which is termed the '*Postal Rule*' the rule states that when the communication of an offer by post is deemed an acceptable media of communication. The contract is established when the offer is placed in the outgoing mail box.

Although, in recent times with the development of fax machines, e-mail systems and electronic procurement, how the postal rule applies in these situations has been tested in court. In *Entores v Miles Far East Corp* [1955] 2 QB 327 Lord Denning made a landmark decision on the postal rule, stating that when such electronic communication mediums are implemented the regular [postal rule](#) did not apply for instantaneous means of communications such as a telex. Instead, acceptance occurs where the message of acceptance is read.

### **1.7.3 Invitation to Treat**

An invitation to treat is where a statement, not intended to create a binding contract is accepted, but merely intended to induce the other party to make offers. Thus, the circulation of a price-list or catalogue by a seller of goods will not normally be regarded as an offer, but merely an invitation to treat.

In *Grainger Son v Gough* (1986) An English Company acted as agent for a French champagne firm. They circulated catalogue amongst potential customers in England and transmitted orders to France. It was necessary (for tax purposes) to decide whether the French firm were carrying on a business in England. It was held by the House of Lords that they were not, because the circulation of catalogues constituted merely invitation to treat.

Customers made the 'offer' when they placed orders for champagne and the French firm accepted these offers by fulfilling the order. Since this was an activity they carried out entirely in France, they were deemed not to be carrying on a business in England

The most famous legal case surrounding invitation to treat is *Fisher v Bell (1961)*. A statute had made it illegal to 'offer for sale' flickknives. The defendant shopkeeper placed a flick-knife on sale in his shop window. It was held that he had committed no offence, since the window display was not an offer to sell the flick-knife but merely an invitation to passers-by to make offers to buy. Thus the only time the statute was deemed to be broken was when the customer made an offer and the shopkeeper accepted such an offer.

## **1.8 Consideration**

It is a principle of English law that a gratuitous promise is not enforceable as a contract. The promise must be supported by consideration or must be made as a deed.

The law sees a contract as a bargain or something that both parties will gain from. Consideration can be said to be the something they gain. For example a client gains a promise to build from the contractor and the contractor receives a promise to pay from the client.

Here we have a typical contractual agreement which can be said to be an exchange of mutual promises, however, in practice it may be the Promisor (the person making the promise) gains no benefit but instead the Promisee (the person to whom the promise is made) has a detriment.

Consideration has been variously described as:

*An act or forbearance of one party, or the promise thereof, is the price for which the promise of the other is bought, and the promise thus given for value is enforceable. (Lord Dunedin in Dunlop v Selfridge (1915) AC 847)*

*A valuable consideration in the sense of the law may consist either in some right, interest, profit or benefit accruing to one party or some forbearance, detriment, loss*

*or responsibility given, suffered or undertaken by the other . . . (Lush in Currie v Misa (1875) LR 10 Exch 153)*

Consideration maybe described as:

1. **Executory** – Where there is an exchange of mutual promises to perform some act in the future. A ‘Bilateral’ agreement, this will include most agreements. In construction it will include a promise by the contractor to build and promise by the client to pay.
2. **Executed** – Where one party performs an act because of the promise made by another party. A ‘unilateral’ agreement. An example might be where the first party brings back a lost dog or provided information because of a reward offered by a second party.

### **Principle rules covering consideration**

There are four principle rules which govern the sufficiency and nature of consideration.

These are:

- Consideration must move from the promisee
- Consideration need not necessarily move to the promisor
- Past consideration is not good consideration
- Consideration must be sufficient but not necessarily adequate

#### **(1) Consideration must move from the promisee**

Let us say that ‘B’ promises to build. Here ‘C’ must promise that he or she will pay. It is not sufficient for ‘C’ to promise that another (say ‘X’) will pay. The consideration (the promise to pay) must come from ‘C’ and not someone else.

Better remembered as ‘Only the person who has provided consideration can sue on that agreement’

In *Tweddle v Atkinson* (1861) B&S 393 'G' agreed with 'T' that they would each pay a sum of money to 'T's son 'W'. 'W' was 'G's perspective son-in-law and later sued for the sum of money. The court held that no consideration had moved from 'W' therefore his action failed.

The case established the fact that no stranger to the consideration can take advantage of the contract, although it may be made for his benefit.

## **(2) Consideration need not more to the promisor**

As we have seen above that rather than the promisor gaining the benefit the promisee suffers some detriment

In *Carlill v Carbolic smoke ball co* (1893) 1 QB 256 the consideration was the use of the smoke ball. No direct benefit moved from Mrs C to the CSBC. It however was held to be detriment on her part

In *Tanner v Tanner* (1975) 1 WLR 1346 a woman moved out of her rented flat and moved in with a man who had bought a house. The court held she had provided consideration by moving out of her rented house.

In *Horrocks v Foray* (1976) 1 WLR 230 it was held that a woman had not provided sufficient consideration by moving in with her partner as co-habitee.

## **(3) Past Consideration is not good consideration**

One cannot use a promise as consideration which has been used previously. Consideration is said to be in the past when it consists of some service or benefit previously rendered to the promisor.

In *Roscorla v Thomas* (1842) 3 QB 234 'R' brought a horse from 'T' later R asked if the horse was free of 'defects' and T promised that it was when in fact it wasn't 'R' sued on this promise but the court held that consideration was in the past.



In *Re McArdle* (1951) CH 669 A woman had carried out work on a dwelling owned by her family. After the work was completed the family promised to pay the woman. They later refused to pay and the woman took action. The court held she could not enforce the promise because the consideration was in the past.

Qu. How does this differ from the builder who carries out work and expects to be paid on completion?

#### **(4) Consideration must be sufficient but not necessarily adequate**

In simple terms this means that the consideration must have some value but it doesn't have to have equal value. So a 'peppercorn' rent of say £10.00 would be sufficient to enforce an agreement even though the market rent might be say £500.00. Must have some value; as long as the value can be measured the court will accept it as being sufficient consideration.

In *Chapel v Nestles* (1960) AC 87 it was held that chocolate wrappers were sufficient even though they were thrown away later. Without them claimants couldn't claim a reward for 1/6d

In *White v Bluett* (1853) 23 LJ Ex 36 a father promised not to sue his son in return for the son's promise not to bore his father with complaints. The son's promise was held insufficient as consideration.

#### **Duty already promised:**

One cannot use as consideration something that is already promised in an earlier contract with the same person

In *Stilk v Myrick* (1809) 101 ER 129 sailors had signed on for a voyage to the Baltic and back. During the voyage two sailors jumped ship and the captain, unable to find replacements, promised to share out two wages amongst the remaining crew if they would work the ship back to England. Later he refused to pay out. Held in *Hartley v Ponsonby* (1857) 11 EL & BL 872 where a similar situation arose the crew were held to have provided sufficient consideration because a higher percentage of crew went missing and the crew had to work the ship home in dangerous conditions.

In both the above cases we see that the original contract is not at issue, what is at issue is some subsequent agreement where the consideration used may or may not be part of that used

in the initial contract. One can see problems when a builder on a contract with a client carries out extra work and then is refused payment.

### **Duties owed to third party**

It may be that consideration already held to some third party may be sufficient consideration. In *Scotson v Pegg* (1861) 6 H&N 295 a promised to deliver coal to b as and when b ordered b ordered some coal to be delivered to c. c promised a that he would unload the coal.

When c failed to unload the coal a successfully sued him even though A's promise of delivery had been with B.

### **Duties owed by law**

If a duty is owed under the law then it cannot be used as consideration.

In *Collins v Godefroy* (1831) 1 B&Ad 950 a man was subpoenaed to give evidence for another person (X). the man claimed that person X had promised to cover his expenses and had then refused, it was held that the duty to attend and give evidence was required by law and was not sufficient to make the expenses promise enforceable.

If the promise is to do something that is more than the law requires then this may be sufficient consideration.

In *Glenbrook v Glamorgan C C* (1925) AC 270 the promise of higher police protection than the law demanded was sufficient to enforce a promise to pay for this protection.

In *Ward v Byham* (1956) 2 All ER 318 a mother promised the father of her child that she would keep the child 'well looked after and happy'. This was held to be sufficient consideration for the promise was more than the legal requirement which was to 'maintain' only.

### **Problems**

#### **One**

You are a surveyor who has carried out a valuation survey on a client's home. Having filled in the valuation forms you have now received your fee. Some days later the client contacted

you and asked if the dwelling would get planning permission for an extension. You suggest it would.

When the planning authority refuse permission to build the extension the client takes you to task over your advise about the planning approval. What might your position be if the client took action for breach of contract?

## **Two**

You are leaving your wife and she suspects that there is another woman, she tells you that should you go she will sell your new car to pay for her future. You reply that the car is yours and any money from the sale will be yours. In the continuation of a violent row you say well sell the car then' you later hear that she has sold it for £10.00 and the buyer want the log book and keys.

Has a contract been made?

## **Three**

As a contractor you are carrying out building work when you are asked to carry out further work. Upon completion of all the work an invoice is presented for the agreed contract figure and the client agrees to pay you £56,000/ and extras.

Later the client argues that his agreement to pay extra was a mistake and in any case it was said after the work was completed and therefore meant nothing.

Where does the contractor stand?

## **Four**

A man advertises in the local paper for information about the housing estate on which he lives. Apparantly certain dwellings on the estate are settling unduly and he is to take action. The advertisement promises to compensate anyone who comes forward with information.

You are a joiner who worked on the estate some 20yrs ago. You are aware that certain dwellings on the estate where built over a drained off pond and provide the man with this information. He now refuses to compensate you saying that it is your duty as a citizen to give this information freely

Can you take action for breach of contract?

## **1.9 Invalid Contracts – Duress and Undue Influence**

When looking at contracts, we must also develop an appreciation of how, under contract law, a contract could become invalid. Here the basic principle is that if a person was coerced into entering into the agreement i.e. they entered into the contract against their free will.

Duress is a common law remedy and therefore if proved the contract can be avoided as a matter of right. If undue influence is proved then an equitable remedy is available to the discretion of the court.

### **1.9.1 What is Duress**

Duress at common law occurs when a person enters into a contract under violence or threatened violence to themselves or their immediate family, or where they are threatened with false imprisonment or where they are threatened with dishonour of a member of their family.

Coercion of this kind being by the other party to the contract, their agent or some other person with their knowledge. The coercion being against a person and not their goods.

The person must have then entered the agreement under duress and not of their own free will. They may avoid the agreement after the duress has ceased. Alternatively they may affirm the agreement and this may be implied if the person takes no steps to avoid the contract within a reasonable time. (Ruling in *North Ocean Shipping v Hyundai Construction* (1979)).

#### **1.9.1.1 Case law examples**

In *Cumming v Ince* (1847) an inmate of an asylum agreed to make certain arrangements over her property if the commission of lunacy was suspended. The court held: the agreement wasn't binding as the consent was not freely given.

In *Kaufman v Gerson* (1904) Mr Gerson had taken money. Kaufman threatened to prosecute him unless Mrs Gerson made good the sum. Mrs Gerson agreed (in order to save her

husbands honour) the court held: Mrs Gerson not bound and entitled, if she wished, to avoid the agreement

### **1.9.3 What is Undue Influence**

It is an equitable remedy where a person enters into a contract under influence which prevents them from exercising a free and independent judgement. This influence being exerted by the other party, their servant or agent. The influence of some third party does not count.

Definition – The courts have been careful not to define undue influence, for this may restrict their equitable jurisdiction.

In the leading case of *Allcard v Skinner* (1887) Lindley stated “As no court has ever attempted to define fraud, so no court has ever attempted to define undue influence which includes one of the many varieties (of fraud)

The contract may be avoided by the person who made the agreement under undue influence. (the other party is bound by the agreement unless the contract is avoided).

The remedy is in equity (def) and therefore at the discretion of the court. The remedy will be disallowed where a party delays their claim for ‘delay defeats equality’. It may also be disallowed if the claimant is questionable for ‘he who comes to equity must come with clean hands’

#### **1.9.3.1 Presumed Undue Influence**

Where the relationship between the parties is such that one is entitled to rely upon the advice of the other and that person is therefore in a position to dominate the other then undue influence is deemed to exist.

For example: Solicitor and client, trustee and beneficiary, doctor and patient, parent and child, guardian and ward, religious advisor and person to whom advice is given. Not for husband and wife and probably not for an engaged couple.

In this case the onus is on the 'dominant' person to show there was in fact no undue influence.

The courts will normally ask the 'dominant' person to show:

- Consideration moving from the 'dominant' person was adequate
- That the potentially 'dominated' party had independent advice in the light of all the facts.
- In the case of a gift the gift was made spontaneously (voluntarily)

### **1.8.2 Student Task**

Split into your Management Studies Groups (check HNC Timetable), select and consider one of the problems, you will be required to report your conclusions to the group.

#### **Problem One**

Fred is told that were he is not to sign a contract his car would be damaged. He signs but later attempts to avoid the agreement. The other party to the contract asks in the pub whether anyone is prepared to beat Fred up and unknown to the other party two men approach Fred and lock him in his car until he agrees that he will keep to the contract.

- *Advise Fred*

#### **Problem Two**

Jane is a manager and tells George that he will be promoted if he is prepared to keep Jane informed of what his work mates say behind Jane's back. Jane has a strong personality and George agrees to tell tales for her. After a period his promotion is refused.

- *Advise George*

#### **Problem Three and Four**

A lecturer demands his students buy a certain textbook. He persuades the students that if he obtains the textbooks then they will pay for them. Harry has no money and when the books arrive he refuses to pay out the £15.00 demanded.

- Do you consider Harry bound by this agreement?
- Is the lecturer bound?

### **Problem Five**

Jean is bedridden and never leaves her flat. The warden of the flats runs errands for Jean. The warden appears to have taken advantage of Jean and it appears that sums of £1500, £600 and £800 have been given to the warden by Jean.

Jean's sister finds out about this and challenges the warden. Her reply is that the gifts were all above board and that Jean had been advised by another resident who was a retired accounts clerk. Apparently the gifts were for the 'wonderful' way that Jean had been looked after.

- Do you think there is any point in chasing this money in court?

### **Tenders and the 'Blackpool Case'**

#### **Task**

When procuring construction works, ABC Developments have asked six separate contractors to submit tenders for the works. In asking for tenders ABC Developments sent out an invitation letter, to which the six contractors responded showing their willingness to tender, and have subsequently been issued with the tender documents and made the requested submissions.

Where do the following parties stand legally at this point?

1. Client (ABC Developments)
2. The six contractors who have submitted a tender

### **1.8.1 Formation of construction contracts – the difficulties**

In most cases the formation of a contract is demonstrated by the mechanism of offer and acceptance based around the three basic essentials required to form a valid contract, namely agreement, the intention to create legal relations and consideration.

Unfortunately in the construction industry, contracts seem to be significantly more difficult to form, and often the formation stage can end up been decided in the courts.

So to recap, an agreement is proven in most cases by showing that there was an offer followed by its acceptance. The offer must be clear, unambiguous and capable of being accepted as it stands. Any attempt to tinker with the offer destroys it and amounts to a counter-offer. In addition an offer must be distinguished from an invitation to treat. This is as stated only an offer to negotiate and its acceptance does not create a valid contract. An invitation to a contractor to submit a tender is only an invitation to treat or an invitation to make an offer. The return of the completed tender by the contractor is the offer. It is the acceptance by the employer of that offer, whether made orally, in writing or by conduct, which creates a valid contract

### **1.8.2 Responses to tenders**

The responses by the employer to the submission tenders are various and quite complicated (in this context the employer may be the sponsor of the project, its agent or a main contractor negotiating with prospective sub-contractors or suppliers). Common responses include:

1. Specific tendering procedures contained in the invitation to tender may not have been followed.
2. Further work may be requested to explain the tender.
3. The submitted tender may have been qualified.
4. A battle of forms may result.
5. Letter of intent is issued (see 1. below).
6. The tender may be accepted by conduct.



### **1.8.3 The submission of a tender**

The rules surrounding the withdrawal of tenders (or offers) are surprisingly relaxed in English law compared to civil law jurisdictions. A tender may be withdrawn at any time before its acceptance, although any withdrawal or revocation must be brought to the attention of the offeror. Tenderers sometimes qualify their tender. Often tender qualifications will centre around the terms of acceptance for example a contractor may attempt to restrict the time the tender stays open by stating 'this tender shall be open for acceptance for six months from the date of submission' or 'our tender is valid for six months from the date of receipt. Employers counter this risk by requesting tender bonds. A tenderer may be required to provide a financial bond to cover the costs of re-tendering, should the tenderer withdraw its tender. It does so; If the contractor does so then it would forfeit the value of the bond.

### **1.8.4 Submitting a tender**

Substantial projects generally require contractors to follow complex procedures when submitting tenders. They may have to pre-qualify, a process by which unsuitable or inexperienced tenderer's are eliminated, or they may be required have to submit formal accounts, current certificates of insurance, lists of key personal and details of project's successfully completed.

In *MJB Enterprises limited v. Defence construction (1955) limited and others* (1999) 15 Const. LJ 455 Iancoucci stated

The purpose of the tendering process is to provide competition, and therefore reduce costs, although it by no means follows that the lowest tender will necessarily result in the cheapest job. Many a 'low' bidder has found there prices have been too low and ended up in financial difficulties, which has inevitably resulted in additional costs to the owner, whose right to recover from the defaulting contractor is usually academic.

Iancoucci continued to argue that a prudent owner would also take into consideration the capacity and experience of the contractor and how realistic the tender price was by comparison with others.

The landmark legal case surrounding tenders is *Flyde Aero Club v. Blackpool BC* known as the 'Blackpool' case.

In *Flyde Aero Club v. Blackpool BC* (1990) 1 WLR 1195 Bingham described the ruling given in *MJB Enterprises limited v. Defence construction (1955) limited and others* (1999) 15 Const. LJ 455 which outlined that the tendering process is generally heavily weighted in favour of the invitor. The invitor does not:

1. Commit themselves to proceed with the project
2. Accept the highest or (lowest) tender
3. Need accept any tender
4. Need give reasons for their acceptance or refusal of a tender

As In the *Flyde Aero Club v. Blackpool BC* Bingham successful argued that a tenderer is entitled to be sure that their tender will, after the deadline be opened and considered in conjunction with all other conforming tenders, or at least that their tender will be considered if others are. Bingham further proposed that this entitlement is not just a matter of mere expectation, but rather it is a matter of *contractual right*.

In *Blackpool* the claimant, Flyde Aero Club had a concession to fly pleasure flights from the local aerodrome. The concession came up for renewal and the claimant placed its tender in the council's delivery box an hour before the expiry of the 12 noon deadline. The council's staff, negligently failed to open the post box that day, and returned the tender some days latter marked 'late'. It was not considered and the council awarded the contract to another bidder. This was in fact a lower bid than that submitted by the claimant, but the council had made it clear that they would *not be bound to accept the lowest tender*. The claimant responded by starting proceedings in the high court, arguing that the express request for tenders gave rise to an implied obligation on the part of the council to consider all tenders duly received, the judge agreed, finding against Blackpool BC, who subsequently appealed to the court of appeal, who in turn upheld the original judgement.

In a later case *Harmon CFEM facades (UK) ltd v The Corporate Officer of the House of Commons* [1999] EWCA Technology 199 described *Blackpool* as 'perhaps no more than authority for the proposition that a contracting authority undertakes to consider all tenders received with all other conforming tenders, or at least that their tender will be considered if other are'.

The court of appeal agreed with the earlier findings and held that in requesting the submission of tenders, the employer had an *implied undertaking*, meaning that all tenders submitted in accordance with *published conditions* would *at least be properly considered*.

From *these two cases* it is now the view that where competitive tenders are sought by any public sector organisations, which are subsequently responded to, a contract comes into existence whereby the prospective employer impliedly agrees to consider all tenders fairly.

## **WEEK 2**

### **2.0 CONTRACT PROCEEDURE AND CONTRACTORS OBLIGATION/ SHADOW AND EXPRESS TERMS.**

#### **2.1 Contractor's Obligations Clause 2**

The primary obligation for the contractor is to execute and complete the works in accordance with the contract documents.

If the quality is to be the subject of the opinion of the architect, it must be to his reasonable satisfaction (something that the bill of quantities should define.

Thus the architect cannot demand better quality than is stated in the contract documents, as amended by A.I.s, regarding quality, etc.

By its nature, this condition excludes any design responsibility on the part of the contractor – he undertakes to complete the works in accordance with the supplied design; he does not undertake that the building will be suitable for its intended purpose. Neither does the contractor undertake that the building will not fail, unless due to standards of workmanship, etc., not in accordance with the contract.

The courts regard contractors as experts in construction and so any design matter that the contractor considers dubious should be queried by him, in writing, to the architect, requesting his instructions and indicating the possible construction problems and or possible subsequent failure.

Following from *Duncan v. Blundell* (1820), an implied term exists for the contractor to warn the architect of design defects known to the contractor and of such defects the contractor believes to exist.

Such action should relieve the contractor of any liability for subsequent building failure due to inadequate or inappropriate design.

‘To complete the works’ refers to practical completion, the point at which, *inter alia*, the defects liability period (D.L.P.) commences. Certain contractual requirements cease at this point also e.g. fire insurance and liquidated damages liability.

The architect may dictate the working hours, order of work execution and postponement of work but *not the method of executing the work*.

Contract bills may not over-ride or modify provisions of the articles, conditions or appendix but may affect them e.g. by noting obligations or restrictions imposed by the employer.

John Mowlem & Co. Ltd. V. British Insulated Callenders Pension Trust Ltd., and S. Jampel & Ptnrs (1985):

(Bill of quantities attempted to contain a performance specification for watertight concrete; consulting engineers used for structural design.) There must be a very clear contractual condition to render a contractor liable for a design fault. Design is a matter which a structural engineer is qualified to execute, which the engineer is paid to undertake and over which the contractor has no control.

Contract Bills – to have been prepared in accordance with B.E.S.M.M. 2.

Any departure from this must be specified in respect of each item or items – usually in the Preambles.

Any error in the bills or any departure from SMM7 not specified – not to vitiate the contract but to be corrected and the correction treated as variation in accordance with clause 13

### **Discrepancies in or divergences between documents**

If the contractor finds a discrepancy between any of the specified documents – drawings, bill of quantities, A.I.s (except variations), schedules, levels – contractor to give the architect **written** notice specifying the discrepancy and the architect shall issue instructions to solve the problem.

*'if'* indicates that the contractor is not bound to find any discrepancies but specifies what the contractor must do should he make such a discovery.

Pricing errors by the contractor are not covered nor is his misinterpretation of the design, unless the design is ambiguous, in which case he may claim.

However, the contractor is considered to be an expert in construction and so the courts will require him to execute the appropriate duty of care in such things as cross-checking contract documents and drawings.

This situation is by no means crystal-clear; the contractor should check and only in extreme cases place reliance on this clause to avoid any liability.

However, in Stanley Hugh Leach Ltd. V. L.B. Merton (1985), the judge accepted that the contractor was not obliged to check drawings to seek discrepancies or divergencies so as to impose a duty on the architect to provide further information.

Normally, the contract provisions will prevail over contract documents e.g. Bill of quantities.  
Contract Procedures

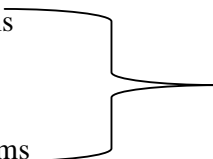
## **2.2 Shadow and Express Terms**

What are contract Terms?

'Terms' = obligations and duties of parties to the contract.

The word 'Term' is often changed to 'conditions' although the meaning in this context is the same

- Types of Contract Terms:

- Implied Terms
  - Statutory Terms
  - Express term
- 2.2.1 Shadow Terms
- 

Let us consider a contract where the terms may be implied.

*“A builder is asked to come around to your house and advise on a damaged roof and gutter. When he arrives you show him the work from ground level and he advises that the roof needs attention and he will come the next day and carry out repairs”.*

Where would the terms apply?

Express Terms applied to scenario:

- You are the client
- Him the builder
- Your roof is to be repaired
- He will come tomorrow

What about the rest of the terms?

These will be implied into the agreement by common or statute law.

- The rest of the terms
  - The builder will use proper materials
  - The builder will make a proper job and his workmanship will be to a reasonable standard
  - The dwelling will be fit for habitation
  - The builder will charge a reasonable fee and will pay a reasonable fee.
  - Etc Etc.

### **Express Terms**

- Implied terms cannot be relied upon.
- We have to be definite in:
  - What the standards are to be.

What the proper fee is for the work

- Key Questions to be considered:

- What if something goes wrong?
- What if the client changes their mind?
- What if there is extra works?
- What if the project overruns?

We need mechanisms to deal with these issues.

- To deal with these situations we have a set of express terms “*The standard form*”
- The standard form is part of the agreement between parties
- Usually covering all eventualities

### **The Shadow Contract**

- Key point

“The selection of implied terms still exists”

- The implied terms sit behind the express terms
- If the express term fails we may be able to fall back on the shadow implied term.

### **The Shadow Terms**

The shadow terms can have the following effects:

1. The Express term displaces the shadow term
2. The shadow term can be used as an alternative
3. The express term cancels out the shadow term
4. No equivalent shadow terms exists

### **The Express Term Displaces the Shadow Term**

- Payment Clauses

### Implied Term

- Contract is entire



- Payment on completion only

#### Express Term

- Interim payments allowed for (Statutory Term)
- Principle of 'entire' remains
- Final Certificate = only this certificate confirms work is satisfactory. So the contractor cannot put up an argument that work already paid for in an interim certificate is evidence that what turned out to be a defective work has been accepted by the employer and therefore frees her (the contractor from obligation to make good)

### **2. Using shadow terms as an alternative**

- Shadow Term (Repudiation)
  - Fundamental breach of contract.
  - Injured party has right to 'accept' this breach.
  - On notice sack the other party and end the contract.

#### Express Term (Determination)

- Allow client to 'determine the contractor's employment (does not need to be a serious or any breach).
- Sets out contractual machinery for compensation.
- Sets obligations of the parties in case of a determination.

### **3. The express term cancel out the shadow term**

- Within the contract there are several clauses which facilitate express terms to cancel out shadow terms, examples include:
  - Set Off
  - Extension of time and liquidated damages

- Loss and Expense

#### Shadow Term

- At common law time is at large
- Contractor must complete within a reasonable time.
- Fails – breach of contract – client can recover unliquidated damages.

#### Express Term

- Contracts demand work be completed by a fixed date
- Time is of the essence
- When the client adds additional work or causes delay – time is at large
- To overcome this the contract allows extension of time (to cover clients breach)
- LAD in the event of contractor overrun.

#### **Where there is no equivalent shadow term**

- Example – Variations

#### Shadow Term

- Not recognised
- If changes made = new contract agreed
- If change forced by one party = breach of contract.

#### Express Term

- Mechanism to allow for variation instructions
- If allowed by contract - contractor obliged to undertake the works

## **WEEK 3**

### **3.0 DOCUMENTS FORMING THE CONTRACT - ARTICLES OF AGREEMENT**

#### **3.1 Contract Documents**

Consist of the following:

- Articles of Agreement
- Appendix (Now referred to as Contract Particulars)
- The Conditions (This is in essence what we refer to as the Standard Form)
- The Drawings
- The Bill of Quantities; consisting of the bills and the specifications.

#### **3.2 Articles of Agreement**

- In a construction contract, this means by which the three essential ingredients above are attested to
- The offeror (the one making the offer) is defined i.e. the contractor
- The offeree (the one doing the acceptance) is defined i.e. the employer or client
- The consideration is confirmed by a statement that the employer is willing to and will pay the contractor a sum of money equating the contract sum for the works
- The signing of the contract: implications of the Limitation Act (1980)
  - Under-hand and Contract executed as a Deed
  - Sets out responsibility for negligent actions in respect of latent damage not involving personal injuries;
    - 6 years where signed Under-hand and
    - 12 years where signed as a Deed

- Dispute or difference – Reference to adjudication
  - If any dispute or difference arises under this contract either party may refer it to adjudication in accordance with clause 41A – Article 5
- Dispute or difference – Reference to arbitration
  - Article 7A
- Intent of employer regarding the desired project is clearly stated
- All contract drawings are stated by number reference
- Architect and Quantity Surveyor defined

The Planning Supervisor is defined

Articles of agreement:

- Most important section of the contract
- Core statement of what the parties have agreed
- Without them – there is no contract

### 3.2.1 Parties to the Contract

- Two essentials to a contract are dealt with:
  - The offeror is defined (the contractor)
  - The offeree is defined (the employer)

## **Contractors Responsibilities**

- They will carry out and complete the works shown and described in the documents.

## **Employers Responsibilities**

- The employer will pay to the contractor the sum of N..... Equating the *contract sum* (*tender figure*)
- The employer is to provide all that is required to facilitate the carrying out of the works by the contractor – including the various intermediate parties to the contract.

### 3.2.2 Recitals

- Put the agreement into context
- Describe what is required and what events have taken place.
- First six recitals apply to all
- Seventh to tenth recitals apply ONLY when the contractor is to undertake design works.

### 3.2.3 Articles

- Article One – Overriding obligation of contractor
- Article Two – Overriding obligation of employer
- Article Three – Identifies to person undertaking to duties of the architect
- Article four – Identifies to person undertaking the role of the Quantity Surveyor
- Article five – Identifies to person undertaking to duties of the CDM Coordinator
- Article Six – Identifies to person undertaking to duties of the architect
- Article Seven – Reminds parties they have the right to refer disputes or differences to adjudication
- Article Eight – Reminds parties they have the right to refer disputes or differences to arbitration
- Article Nine – Reminds parties they have the right to refer disputes or differences to the courts

### 3.2.4 Attestation

- Concludes the articles of agreement
- This is signed either:
  - Underhand
  - By Deed

Link to contract law

The three essentials are dealt with:

- The offeror is defined (the contractor)
- The offeree is defined (the employer)
- Consideration is dealt in the first and second articles.

The signing of the contract – limitation act (1980)

### Survey of Standard Forms

- Wide variety of forms available to the client
- Objective of choice of forms may be to:
  - Move some risks from the client to the contractor depending on the arrangement chosen
  - Our task as professional advisers to the client is to choose the most advantageous procurement path for the project and client.
- The 'correct' choice of procurement path is not on its own a guarantee for success.
- A vital ingredient in successful projects is the quality of management involved.
- How do you measure success in project execution?
- JCT Main Forms
  - JCT 2005
  - Design & Build 2005

- Management Contract 2005
- IFC 2005
- Minor Works 2005
- Central Govt Forms
- GC/Works/1
- GC/Works/1
- The New Engineering Contract (NEC)
- Bespoke Contracts
- FIDIC Contract (International)

### **APPENDIX (CONTRACT PARTICULARS)**

Very much like the Articles of Agreement, this is a simple form (Questionnaire) which allows basic but simple project details to be filled in, which then become part of the contract. Some of these are identified and defined below.

### **2.3 Definition of Terms**

**Base date:** This is taken as 10 days before the Date of Return of Tender. This is especially relevant for fluctuating contracts as this date is taken as the reference date on which the prices in the bills are believed to be based.

**Date of possession:** This is the day the contractor takes over the site. Failure to make the site available to the contractor on this date will be a breach. The option is provided within the Appendix to defer this date by up to 6 weeks. If this option is exercised, an extension of time is granted to the contractor to cover the delay in possession.

**Completion Date:** The date stated for the project to be handed over. This date will only change without causing a breach only by the operation of the Extension of Time clause. Any change can only require the date to be put forward. Under no circumstances is the date put backward, even if the scope of the work was reduced.

**Practical Completion:** This is the handing over date for the project which may or may not coincide with the Completion Date identified in the Appendix or any Extended Date therefrom. Where there is no coincidence, it is often the case that the differential entitles the Employer to claims for LAD.

**Defect Liability Period:** The length of the period is identified in the Appendix as an option. It is usually six months or 12 months after Practical Completion. The period is allowed to allow the contractor remain responsible for defects in the works which are as a result of his/her default in the carrying out of the works. This default may be materials or workmanship not complying with the contract.

**Schedule of defect:** This comes through as Architect Instructions identifying the defects at the end of the Defect Liability Period which the contractor may be obligated to rectify. This is expected to be provided to the contractor by the Architect no later than two weeks after the expiration of the Defect Liability Period.



## **WEEK 4**

### **4.0 LETTER OF INTENT (AWARD)**

#### **4.1 Letter of Intent**

Letters of intent are very useful devices for ‘kicking off’ commercial relationships. Often in construction it may be that a client wishes to start some preliminary work on site before planning permission, or some other approval is given. It may be that a contractor wishes to order materials and components, having a long delivery date, early. It may be that a main contractor asks a sub-contractor to prefabricate components to be used in the early stages of the contract.

In these situations the contract will not have been awarded to the main contractor formally, yet they are required to go ahead and carry out certain procedures.

In these and similar situations the client, contractor and sub-contractor should be aware that the full contract may never come into full fruition. A ‘letter of intent’ is used in these cases to instruct the relevant party to carry out preliminary work.

An example of a simple letter of intent is shown below

*Dear Sirs,*

*With reference to your tender dated . . . . it is our intention to award the contract to you, subject to agreement being reached in further negotiations.*

*However, as the work is urgent, we authorise you to begin design work. We will pay you for such design work at £x per hour for each of your design staff, payable monthly in arrears, subject to a maximum limit of £10,000.*

*We reserve the right to require the termination of such design work at any time*

*Yours faithfully*

*Mr Client*

In reality a letter of intent is really the client saying

*We intend to award you the full contract as soon as we can. Go ahead with preliminary work on the understanding that if the full contract is not awarded then this preliminary work will be considered to be a separate agreement and therefore valued on a **quantum merit***

## **4.2 The Legal Standing of ‘Letter Of Intent’**

As stated above the main purpose of a letter of intent is to express a written intention to enter into a contract at a future date. It is purely a term of convenience. Unlike expressions such as ‘*sold subject to contract*’ which has a definable legal meaning or the phrase ‘*without prejudice*’ the letter of intent has no substantive legal meaning.

Indeed, Lord Justice Neill, in his judgement in *Monk construction Ltd v Norwich Union Life assurance society* 62 BLR 107 summarised the legal result of a letter of intent, citing three possible legal outcomes:

1. There is an ordinary executory contract under which each party assumes reciprocal obligations to the other.
2. there is an ‘if’ contract – A contract under which A requests B to carry out a certain performance and promises B that if he does so, he will receive a certain performance in return (usually payment)
3. No contract exists – if no contract was entered into then the performance of work is not referable to any contract, the terms of which can be ascertained and the law simply imposes an obligation on the party who made the request to pay a reasonable sum for such work as had been done pursuant to that request.

Which of the three categories a letter of intent falls into is very much decided by the actual wording used within the document. It is often the intension of most writers of letters of intends that It would slot into the latter of the three possibilities, however, through careless wording, inadvertently they produce one of the other effects and find that they have committed their company or client fully.

For further information on the legal backhole that is the letter of intent, students are advised to read the attached CIOB Occasional Paper which provided a very detailed commentary on letters of intent.

### **4.3 Examples on Letter of Intent using Seven Different Scenarios**

#### ***Scenario One***

A client has invited tenders for work in extending his hotel. A builder quotes £43,780.00. The client provisionally accepts this quotation saying that he cannot give the final go ahead for the extension. His business Partners have still to agree on certain legal and financial matters and this is holding up the final approval of the extension.

The builder is then asked to carry out certain preparatory work, he is asked to:

- Demolish a brick garage and dispose off site
- Reposition a large greenhouse
- Carry out alterations to paths and soft landscaping

All this work was covered in his original quotation.

Now the client has told the builder that the extension is not to go ahead. Finance cannot be raised apparently.

The contractor is obviously upset about this and considers that some compensation is due because of this situation. He says that the client has taken away the contract for the extension which the builder had started.

**Task: Advise both the client and the builder on their legal positions.**

#### **Outline answer to scenario one**

##### **Alternative One**

No letter of intent

Offer and acceptance – client asked for works, contractor accepted

Consideration – builder does work – client pays

Client terminates the contract

No contract signed

There is a contract – orally and by conduct

Common law applies

Client must pay builder damages

### **Alternative Two**

Builder submitted quotation

Client asks builder to carry out other work – counter offer

Contractor accepts

Separate contract

Client must pay for works executed

Builder not entitled to compensation

### **Alternative Three**

Builder submits quotation

Client provisionally accepts the quotation – showing intention to enter into a contract

Builder executes work based on this intention, works requested by client

Payment for work based on quantum merit

No damages

### ***Scenario Two***

A client has invited tenders for work in extending his hotel. A builder quotes £243,780.00. The client provisionally accepts this quotation saying that he cannot give the final go ahead for the extension. His business Partners have still to agree on certain legal and financial matters and this is holding up the final approval of the extension.

The contractor in turn advised the client of several elongated lead in periods resulting from the need for specialist design works, for which orders must be placed now. Although the client's partners had not ratified the project it was agreed to issue the builder with the following letter of intent

*Dear Sirs,*

*With reference to your quotation dated 14<sup>th</sup> August 2007 it is our intention to award the contract to you, subject to agreement being reached in further negotiations.*

*However, as the work is urgent, we authorise you to begin design and preparatory works to the site. We will pay you for such work at £19.20 per hour for each of your staff, payable monthly in arrears, subject to a maximum limit of £10,000.*

*We reserve the right to require the termination of such work at any time*

*Yours faithfully*

*Mr Client*

The builder is then asked to carry out certain preparatory work including:

- Demolish a brick garage and dispose off site
- Reposition a large greenhouse
- Carry out alterations to paths and soft landscaping

All this work was covered in his original quotation.

Now the client has told the builder that the extension is not to go ahead. Finance cannot be raised apparently.

The contractor is obviously upset about this and considers that some compensation is due because of this situation. He says that the client has taken away the contract for the extension which the builder had started.

**Task: Advise both the client and the builder on their legal positions.**

### **Outline answer to scenario two**

Same as scenario one – letter of intent allows for option three to be selected.

- Payment for works completed is on quantum merit

- Works to be completed is limited
- An “IF” contract is created – the letter of intent gives specific terms

### ***Scenario Three***

A main contractor has recently been awarded the contract for the construction of a new cinema complex in the centre of Lolon. At this stage the client had now signed the main contract, and had commenced ordering materials for works on the critical path or required design and fabrication prior to delivery.

During the tendering period the main contractor had tendered the design, manufacture and erection of the building steel frame to several local contractors, Smiths Steel being the most competitive.

The quantity surveyor for ADQ Construction, the main contractor proceeded to contact Smiths Steel to place the order in agreement with the conditions under which the quotation had been provided (namely the works will be subject to the contractors standard in-house sub-contract and steel erecting is planned for weeks 20 – 27 of the contract.)

Smith’s steel accepted the order, although they stated that the contract will be sent to their lawyers for checking to ensure the condition matched those at tender stage. Given the tight timescale ADQ accepted this position, although asked smiths to commence work for which a letter of intent will be issued (see reverse)

One receipt of the letter Smiths steel commenced design and fabrication works are requested, sending the contract to their lawyers with the tender and all other correspondence for advice and signature.

Unfortunately the lawyer discovered the clients contract had amended by the delivery/erection sequence, now splitting this into two phases. After several months of wrangling neither party could reach agreement Smiths suspended works and are now demanding payment for works carried out under the letter.

**Task: Advise both the client and the builder on their legal positions**

*Letter of intent from ADQ Construction Ltd to Smiths Steel Co. Ltd.*

*Dear Mr Smith,*

*We are pleased to advise you that it is the intention of ADQ Construction to enter into a sub-contract with your company for the design, fabrication and erection of the steel frame for the cinema, Mort Dr. Bolon.*

*The price will be as tendered on the 5<sup>th</sup> August 2007. The form of sub-contract to be entered into will be our standard form of sub-contract for use with the JCT 2005 SBC, a copy of which is enclosed for your consideration.*

*We request that you proceed immediately with the works pending the preparations and issue to you of the official sub-contract.*

*Yours faithfully*

*Joe Bloggs*

*On Behalf of ADQ Construction Ltd.*

**Outline answer to scenario three**

Based on case of British Steel corporation v Cleveland Bridge

Key points:

- No contract was/has been agreed
- Smiths steel commenced with the work – agreed
- Smiths should be paid on quantum merit

## WEEK 5

### 4.0 LETTER OF INTENT – AWARD (cont'd)

#### *Scenario Four*

A client has invited tenders for work in extending his hotel. A builder quotes £243,780.00. The client provisionally accepts this quotation saying that he cannot give the final go ahead for the extension. His business Partners have still to agree on certain legal and financial matters and this is holding up the final approval of the extension.

The contractor in turn advised the client of several elongated lead in periods resulting from the need for specialist design works, for which orders must be placed now. Although the client's partners had not ratified the project it was agreed to issue the builder with the following letter of intent

*Dear Sirs,*

*"Subject to Contract"*

*With reference to your quotation dated 14<sup>th</sup> August 2007 it is our intention to award the contract to you, subject to agreement being reached in further negotiations.*

*However, as the work is urgent, we authorise you to begin design and preparatory works to the site. We will pay you for such work at £19.20 per hour for each of your staff, payable monthly in arrears, subject to a maximum limit of £10,000.*

*We reserve the right to require the termination of such work at any time*

*Yours faithfully*

*Mr Client*

The builder is then asked to carry out certain preparatory work including:

- Demolish a brick garage and dispose off site



- Reposition a large greenhouse
- Carry out alterations to paths and soft landscaping

All this work was covered in his original quotation.

#### **Outline answer to scenario four**

As above

- Addition of the words 'subject to contract' – prevent a contract coming into existence for the main works
- The letter of intent could be seen as an invitation to undertake the works, although the use of 'subject to contractor' would make the wise person to walk away
- The works completed should be paid for on quantum merit
- No further payments for damages can be claimed as there was no contract.

#### ***Scenario Five***

You are currently employed as a quantity surveyor at Pleckgate Refurbishment; your firm have, for the past 20 months being undertaking the extensive refurbishment of an office building in the city of London.

As you have only recently taken over this project, as the last surveyor recently handed her notice in and left the firm, you have worked through the valuations for the project and compared these to the client's valuations and payment received. You notice that, although the measured works are being paid for at the rates in the bill of quantities, you discover that the preliminaries are wide apart. After further analysis you discover that your predecessors valuations compared to those of the client are £2million apart

In a drastic attempt to recover these preliminary payments you contact the client QS who disputes the preliminaries you are claiming stating that you have no entitlement to such payments.

You then discover that your company has never signed a contract with the client and have, since January 2006, being working off the letter of intent issued by the client.

**Task: Advise Pleckgate Refurbishments on their legal positions**

*Letter of intent from the client to Pleckgate Refurbishments*

*Dear Sirs*

*We confirm that it is our intention to enter into a formal contract in the form of the standard form of building contract 1998 edition Private with quantities (include amendments) to appoint your company as building contractors. In the sum set out in your tender. The final form of building contract together with the terms of the Escrow agreement are those to be agreed between our solicitors and your solicitors and confirmed by the quantity surveyors.*

*Pending the execution of the building contract and the escrow agreement we are now instructing you to proceed with the works*

*In any event that we decide not to appoint you or proceed with the works for any reason we will reimburse you after making due allowance for all previous payments made to you which you have made and all reasonable costs properly incurred by you together with a fair allowance for overheads and profit.*

*Will you please signify your acceptance of the above terms.*

*Yours faithfully*

*Mrs Client*

**Outline answer to scenario five**

From *Hall & Tawse South Ltd v Ivory Gate Ltd (1998) EWHC Technology 358*

- An Escrow = Deed, bond or other engagement delivered to a third party to take effect upon a future condition and not till then to be delivered to the grantee.
- Decision, which applies to the scenario:

- Contract formed by conduct
  - Client accepted offer by issuing letter of intent
  - No express terms agreed therefore quantum merit applies
  - Reasonable sum gleaned from Bill of Quantities
  - All other issues should be dealt with using JCT SBC 05 or JCT 98.

### ***Scenario Six***

You have been employed as PQS for the construction of a new 29 storey office block in central Birmingham for your clients Overdale Properties Ltd. The design stages of the project have now been completed and the project was successfully tendered in August 2004 with 5 tenders returned on the 28<sup>th</sup>. Following consideration of the tenders you recommended to the client that they proceed with the tender received from MEC construction Ltd, a multi-national organisation who specialise in large multi-story developments. Based on this the client issued MEC with the letter of intent shown overleaf on the 6<sup>th</sup> September 2004.

Negotiations between Overdale and MEC continued for several months before breaking down in February 2005. MEC Construction Ltd agreed to continue with the development based on the letter of intent and completed it in March 2007.

MEC received several payments from Overdale although these were infrequent at best. Although on completion of the development now MEC are requesting the payment of the remaining sum of £3,098,465.00 plus VAT identifying this to be their reasonable costs for carrying out the works.

**Task: Advise Overdale Developments Plc on their legal position, and advise on the possible position of the contractor MEC Construction Ltd**

***Letter of intent from the client to MEC Construction Ltd***

*Dear Sirs*

*We confirm that it is our intention to enter into a formal contract in the form of the standard form of building contract 1998 edition Private with quantities (include amendments) to appoint your company as building contractors. In the sum set out in your tender.*

*The final form of building is those to be agreed between our solicitors and your solicitors and confirmed by the quantity surveyors.*

*Pending the execution of the building contract we are now instructing you to proceed with the works*

*In the unlikely event of the contract not proceeding MEC Construction Ltd will be reimbursed their reasonable costs which have been and will be incurred and costs for which they are liable including those of their sub-contractors and suppliers. Such costs to include loss of profit and contribution to overheads all which must be substantiated in full to the reasonable satisfaction of our quantity surveyor.*

*Yours faithfully*

*Overdale Developments Plc*

### **Outline answer to scenario six**

Based on 'CJ Sims Ltd v Shaftesbury Ltd (1991) BLR 94

- The letter of intent creates a condition precedent
- MEC are not entitled to a payment until they have substantiated the claim to the satisfaction of the clients QS.
- No payment is due until this claim is substantiated,

### ***Scenario Seven***

A letter of intent has been sent from a national contracting Plc to a domestic sub-contracting company for the fabrication of prefabricated modular toilet units which are to be installed in a new high profile corporate building which the main contractor is currently constructing for broadcasting company.

The letter of intent reads as follows

*Dear Sirs*

*We confirm that it is our intention to enter into a sub-contract with you to provide all labour, plant, materials and supervision necessary to carry out and complete the design, fabrication, supply, transportation, installation and testing of the prefabricated modular toilet units at the above contract and in accordance with the documentation listed hereto. The approximate sub-contract sum will be £950,000.00. The terms and conditions of the sub-contract to be entered into will be the Domestic Sub-contract DOM/2. the formal sub-contract will be forwarded to you in due course, but in the meantime, please accept this letter as authority to proceed with the subcontract works which are to be carried out and completed in accordance with the sequences, dates and durations shown on the contractor's programme for main works.*

*Please sign and return to us as acknowledgement of acceptance and confirmation of receipt, the copy of this letter attached.*

*Yours faithfully*

**Task: Discuss the ramifications of such a letter**

**Outline answer to scenario seven**

- There are three possible legal consequences of letter of intent: Discuss then
- It may form a contract for the work;

- It may form what is known as an “if” contract – a contract which come into existence if some specified action is taken; or

- It may have no legal effect at all.

- Quantum merit

A contractor working on the strength of a letter of intent found it impossible to recover any costs for finished work without making a full substantiation for verification by the employer’s QS. So far the courts have declined to help the contractor.

## **WEEK 6**

### **5.0 LIQUIDATED DAMAGES**

#### **5.1 Liquidated Damages**

It is a basic principle of English law that if one party to an agreement breaks a term of that agreement causing the other party to suffer financial loss, that the second party can claim compensation or 'damages'. However, if it were left to aggrieved employers to claim and prove specific losses on each and every occasion that a contractor failed to meet a completion date, it would be a total waste of time, cost and effort in detailed litigation.

It is therefore normal in building contracts to provide for employers to recover 'liquidated' damages, a set sum, from contractors if they fail to complete the work or sections by the relevant completion date. However, to avoid such damages, they must be 'ascertained', that is they must be a genuine pre-estimate of the likely loss that will be suffered by the employer if there is a delay to the completion date of the work or respective section.

The pre-estimate of loss does not have to be totally accurate but to be acceptable if queried in the courts it should be the result of making what is, in all the circumstances, a realistic attempt at pre-judging an employer's losses likely to arise from any delay between the contractual completion date and the actual date of practical completion.

The Standard Building Contract (SBC) makes provision for recovery of liquidated damages in . It also requires the insertion of an amount and period for those damages in the contract particulars against clause 2.32. It is important that the entry in the contract particulars is carefully considered. As stated above, the amount of liquidated damages must be a genuine pre-estimate of loss and applies either to the whole of the works or a section of the works.

The operation for recovery of liquidated damages under the SBC is summarized below

- If the contractor fails to complete the works or section by the completion date the architect/ contract administrator is required to issue a certificate to that effect.
- Provided that such a certificate has been issued employer's may, if they so wish , inform the contractor in writing that they may withhold, deduct or require payment

of liquidated damages. If the employer chooses to so inform the contractor, this must be done not later than five days before the final date for payment of the debt due under the final certificate.

- The employer may then advise the contractor in writing that the employer is to be paid liquidated damages at the rate stated in the contract particulars , or at a lesser rate if the employer so chooses, for the period between the completion date and the date of practical completion. Alternatively the employer may advise the contractor in writing that such liquidated damages will be deducted from monies due to the contractor.
- If after the payment or withholding of liquidated damages, the architect/ contract administrator fixes a later completion date under the procedure referred to above, the employer must pay or repay to the contractor any amount recovered, allowed or paid in respect of the period between the original completion date and the later completion date.

#### **5.1.1 JCT CLAUSE ON LIQUIDATED DAMAGES 2.37**

“As from the Relevant Date, the rate of liquidated damages stated in the Contract Particulars in respect of the Works or Section containing the Relevant Part shall reduce by the same proportion as the value of the Relevant Part bears to the Contract Sum or to the relevant Section Sum, as shown in the Contract Particulars.”

**If there is an insufficient amount owing to the contractor by which to offset the damages, the employer can recover the balance as a debt.**

**The amount stated in the appendix for Liquidated and Ascertained Damages** must be a realistic sum (estimate) related to the employer's actual loss. If the amount is seen to be a 'penalty' then the courts may review the matter or it may become altogether invalidated with the benefit to its claim lost.



This clause provides machinery whereby the parties can agree in advance the damages to be payable by the contractor if he fails to complete by the completion date stated in the Appendix or any extended completion date authorised by the Architect under clauses 25 and 33.1.3.

The basis for this clause is that the contractor is to assume the risk and responsibility of surmounting all events which may prevent him from completing by the due date, subject to Clause 25 and to his being discharged from his obligations by the operations of law, i.e. frustration.

Should no completion date be inserted in the Appendix then no liquidated damages will be payable.

If no figure for liquidated damages is inserted in the Appendix, or if for any other reason liquidated damages are not payable, the employer would only be able to recover any loss which he had suffered through delay in completion by way of unliquidated damages at common law. This is obviously more cumbersome for the contract and therefore should be avoided as much as it is practicable to do so.

The general law of contract subjects agreements as to how much shall be paid by way of damages to several controls, one of the most important being the distinction between "**liquidated damages**" and "**penalties**". A provision for liquidated damages is valid and enforceable, whereas a provision for a "penalty" is invalid.

The distinction between the two does not depend on how the parties describe the provision, but on its purpose.

If the court did hold that the sum was actually a penalty, this would not mean that the employer recovered nothing, but only that he had to prove his actual loss, i.e., recover unliquidated damages at common law.

A sum constitutes liquidated damages if it is a fixed and agreed sum which is a reasonable and genuine pre-estimate of the loss likely to be incurred, which estimation has been made and agreed by the parties at the time the contract was entered into. In contrast, a penalty is a sum of money inserted in order to coerce a party to performance.

The law does not allow the parties to the contract to recover any more than the loss they actually suffer from a breach of contract. The court merely assists the parties where they have made, at the time of making the contract, a genuine pre-estimate of the damage likely to flow from a breach. On the other hand, if the court forms the view that the agreed figure is in reality a

penalty, even though described as liquidated damages, it will be struck out. In such a case, the employer could recover as un liquidated damages the loss actually suffered.

The important point is that liquidated damages are recoverable without proof of loss.

It is sometimes erroneously suggested that where there is a liquidated damages clause of this sort, there should be implied into the contract a condition that the contractor will receive a bonus if he completes before the proper time. No such bonus clause can be implied. If the parties wish to provide for an early completion bonus, they must enter into a collateral agreement to that effect, though this would require considerable modifications to the Standard Form. This should not be encouraged in most of the contracts likely to be encountered.

### **5.1.2 PAYMENT OR ALLOWANCE OF LIQUIDATED DAMAGES**

Clause 24.2 deals with the employer's right to recover as liquidated damages a sum calculated at the rate stated in the Appendix. It is only once a certificate under clause 24.1 has been issued (Clause 5.8 applies i.e. original of any certificate issued goes to the employer and the duplicate copy goes to the contractor) that the employer's right to deduct liquidated damages from monies due or to become due under the contract, i.e. from certificates for honouring already issued or from retention monies. If such sums are insufficient to permit the employer to recoup himself, the liquidated damages are recoverable as a debt by the normal procedure in Court.

The employer's right to liquidated damages is also subject to his giving written notice to the contractor of his intension to claim or deduct liquidated damages. This written notice must be given before the issue of the Final Certificate. In other words, deduction of liquidated damages is discretionary, and the employer may elect to claim the whole or part of the liquidated damages.

Where the architect revises the completion date under Clause 25.3.3, after reviewing the progress of the contract within 12 weeks of practical completion, and fixes a later completion date, Clause 24.2.2 provides for the contractor to be reimbursed for any liquidated damages which have been deducted for the period up to the later completion date.

## **WEEK 7**

### **6.0 ARCHITECT'S CERTIFICATE**

#### **6.1 CERTIFICATES**

1. Interim certificate
2. Statement of retention
3. Section completion certificate
4. Statement of partial possession
5. Notification of revision to completion date
6. Non completion certificate
7. Certificate of practical completion
8. Certificate of completion of making good defect
9. Final certificate

##### **6.1.3 Interim certificate**

This Certificate is intended for issue under the terms of Section 4 of SBC05. This is a long and detailed Section, and users should ensure that they are familiar with the Contract requirements. The following notes can only summarize the main points.

Form F501A provides for entering the main elements of the calculation of the certified amount. If the 'basis' is required in more detail, this could be provided by attaching the valuation or a suitable summary.

Certificates are to be issued to the Employer.

The dates for issue must be as entered in the Contract Particulars, and each Certificate must be issued not later than 7 days after the date of the interim valuation.

In view of the short time allowed for payment, the Architect/Contract Administrator is advised to give warning to the Employer of the issue dates and approximate amounts of Interim Certificates. If the Employer intends to make any deduction from the certified amount, he must issue a notice to the Contractor. If no notice is issued, the certified amount must be paid in full (clauses 4.13.3 to .5). Interest is payable on late payments (clause 4.13.6).

If the Employer has made any advance payment, reimbursement of this advance payment has to be taken into account in the Interim Certificates. Note that the amount to be entered is not the amount due for reimbursement 'this time' but the cumulative amount due 'to date'. Once reimbursement has been completed, the total amount should continue to be entered on all remaining Interim Certificates.

## **VAT**

a. The Employer shall in addition to the net amount payable, pay the amount of VAT properly chargeable.

b. Note that the words 'This is not a Tax Invoice' should never be deleted.

This form F501A has been drafted with reference to:

- SBC05 published July 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor or other consultants if required.
- A copy should be retained for the File.

Tick the boxes accordingly as an instruction for and record of issues

### **6.1.4 STATEMENT OF RETENTION**

This Statement is intended for issue under the terms of clause 4.18.2 of SBC05.

The Statement makes provision for:

- the gross valuation of work done by the Contractor;
- the identification of amounts subject to

- a. full retention.

- b. Half retention and
- c. nil retention: and –
- d. the calculation of amounts of retention.

The total *of* the amounts of retention is the figure transferred to the Interim Certificate.

This revision of form F502 has been drafted with reference to:

- SBC05 published July 2005. With any later revisions, users should ensure that the wording remains relevant.

Copies should be attached to the interim Certificates issued to the Employer and Contractor  
The original should be retained on file.

### **6.1.3 SECTION COMPLETION CERTIFICATE**

A separate form (F553A/B/C) is provided for certifying practical completion of the Works as a whole.

This certificate is intended for issue under the terms of clause 2.30.2 of SBC05 and clause 2.21.2 of IC05 and ICD05.

A Section Completion Certificate should be issued in respect of each Section in addition to a Practical Completion Certificate (form F553AiBiC) for the Works as a whole.

Partial possession by the Employer requires a written Statement (form F512) but, although practical completion of the Relevant Part within a Section is deemed to have occurred for certain purposes, no Section Completion Certificate is required until completion of the whole Section.

After practical completion of a Section has been certified. Retention is reduced by half for that Section.

The Rectification Period for this Section runs from the date of practical completion of the Section as stated in the certificate.

Note, however, that the Contractor (or, where Insurance Option B or C applies, the Employer) is responsible for insurance in respect of the Section up 1 to and including the date of issue of the certificate.

In completing the form

- enter the Section number;
- delete the first option if there is no Contractor's Designed Portion;
- delete the second option if regulations 7 and **13** only of the CDM Regulations apply;
- enter the date of practical completion.

Certificates should be numbered in sequence within each job.

### **OUTSTANDING ITEMS**

Where it is known to the Architect V Contract Administrator that there are Outstanding items, practical completion should not **be** certified without specially agreed arrangements between the Employer and the Contractor. For example, in the case of a contract where the contract completion date has passed it could be so agreed that the incomplete building will be taken over for occupation, subject to postponing the release of retention and the beginning of the Rectification Period until the outstanding items referred to in a list to be prepared by the Architect/ Contract Administrator have been completed, but relieving the Contractor from liability for liquidated damages for the delay as from the date of occupation, and making any necessary changes to the insurance arrangements.

In such circumstances, either the Section Completion Certificate should not be used or it should be altered to state or refer to the specially agreed arrangements, In making such arrangements the Architect V Contract Administrator should have the authority of the Employer.

This form F558 has been drafted with reference to:

- SBC05 published July 2005;
- IC05 published June 2005;
- ICD05 published June 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor, other consultants, the Clerk of Works and the Planning Supervisor.

Tick the appropriate boxes accordingly as an instruction for and record of issues.

#### **6.1.4 STATEMENT OF PARTIAL POSSESSION**

This form is intended for issue under the terms of clause 2.33 of SEC05 and clause 2.25 of IC05 and ICD05

The issue of the written statement signifies that practical completion of the Relevant Part is deemed to have taken place for certain purposes. These are identified in clauses 2.34 to 2.37 (SEC) and 2.26 to 2.29 (IC and ICD), and relate to:

- the Rectification Period;
- the making good of defects;
- the release of retention;
- responsibility for insurance; and
- The calculation of Liquidated Damages

The Architect/Contract Administrator should advise the Employer of the implications of partial possession, especially in relation to the insurance, security and heating of the Relevant Part. At the same time, care should be taken not to interfere with the Contractor's responsibilities for completion of the rest of the Works.

The Relevant Part of the Works should be described precisely, and the date of possession entered.

Statements should be numbered in sequence within each job.

This revision of form F512 has been drafted with reference to:

- SBC05 published July 2005;
- CO5 published **June** 2005;
- ICD05 published June 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Contractor.
- A duplicate [also signed] should be sent to the Employer at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor, other consultants, the Clerk of Works and the Planning Supervisor.

Tick the boxes accordingly as an instruction for and record of issues

### **6.1.5 Notification of revision to completion date**

This Notification is intended for issue under the terms of SBC clause 2.28. This sets out in detail the procedures to be followed, which are summarized below.

There are three situations in which this Notification may be issued.

#### **1. Notice of delay**

If - the Contractor gives notice of delay under clause 2.27, and the Architect / Contract Administrator (A/CA) is of the opinion that the cause of delay is a Relevant Event which is likely to delay completion of the Works or a Section, then the A/CA is obliged to give an extension of time by fixing a later Completion Date.

#### **2. Omission of work**

If instructions have been issued for any Relevant Omissions. Then the A/CA may fix an earlier date than any previously revised date.

#### **3. Final review**



Within 12 weeks after the date of practical completion the A/CA is *obliged* to review the Completion Date and either confirm it or fix a new date.

If the Works are divided into Sections, these provisions apply to each Section as well as to the Works as a whole

In completing the form:

- indicate whether the Notification applies to the whole Works or to one or more Sections only;
- indicate whether the new Completion Date is earlier, later or confirmed;
- enter the previous and new Completion Dates;
- delete any of the final three options that do not apply (note that one, *two* or all three may apply);
- where Relevant Events apply, identify them (giving the clause 2.29sub-clause number) and state the extension of time attributed to each;
- where Relevant Omissions apply, enter the instruction number (and item number where necessary) identifying the Omission if this is to a limited extent only, make this clear) and state the reduction in time attributed to each.

If there is insufficient space, give details on a clearly identified separate sheet and refer to this on the form.

Notification should be numbered in sequence within each job

"This form F508 has been drafted with reference to:

- SBC05 published July 2005.

With any later revisions, users should ensure that the wording remains relevant

- The original (the signed top copy) should be sent to the Contractor.
- A duplicate (also signed) should be sent to the Employer at the same time.
- Additional copies should **be** issued as appropriate to the Quantity Surveyor, other consultants, The Clerk of Works and the Planning Supervisor.

Tick the boxes accordingly as an instruction for record of issues.

#### **6.1.6 NON COMPLETION CERTIFICATE**

This Certificate is intended for issue under the terms of clause 23.1 of SBCOS and clause 2.22 of KO5 and ICD05 that require the Architect / Contract Administrator to issue a certificate if the Contractor has failed to complete the Works or Section by the relevant date.

'Completion Date' is defined as 'the Date for Completion of the Works or of a Section as stated in the Contract Particulars or such other date as is fixed

[SEC] either under clause 2.28 or by a Pre-Agreed Adjustment'.

[IC/ICD] under clause **2.19**.

It cannot **be** earlier than the original Date for Completion. but under SBC it can be earlier than **a** previously-extended date, whereas IC/ICD only allows for extensions.

It is important to note that under SBC and IC/ICD claims for liquidated damages for non-completion are subject to the issue of a Non-Completion Certificate.

The form may be used in respect of:

- the Works as a whole;
- a Section of the Works where the Works have **been** divided into Sections.

The certificate is not given a title in IC/ICD as in SBC, but the same title is obviously appropriate.

In completing the form:

- delete or complete one alternative as appropriate
- enter the completion date not achieved.

Certificates should be numbered in sequence within each job.

This form F554A/B has been drafted with reference to'

- SBC05 published July 2005;
- IC05 published June 2005;
- ICD05 published June 2005.

With any later revisions, users should ensure that the wording remains relevant.  
delete or complete one alternative as appropriate;  
enter the Completion date not achieved.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor, other consultants, the Clerk of Works and the Planning Supervisor.

Tick the boxes accordingly as an instruction for and record of issues.

### **6.1.7 CERTIFICATE OF PRACTICAL COMPLETION**

A separate form (F553NB) is provided for certifying practical completion of Sections.

This certificate is intended for issue under the terms of clause 2.30.1 of SBC05, clause 2.2\1 of IC05 and ICD05 clause 2.9 of MW05 and clause 2.10 of MWDO5.

The Architect/Contract Administrator shall certify the date when in his opinion the Works have reached practical completion and the Contractor has complied sufficiently with clause 3.9.2 [re health and safety file].

Partial possession by the Employer (SBC and IC/CD only) requires a written statement (form F512) but, although practical completion of the Relevant Part is deemed to have occurred for certain purposes, no Practical Completion Certificate is required until completion of the Works as a whole

After practical completion has been certified, Retention is reduced by half. The Rectification Period runs from the date of practical completion as stated in the certificate.

Note, however, that the Contractor (or, where applicable, the Employer) is responsible for insurance of the Works up to and including the date of issue of the certificate

In completing the form:

- delete the first option if there is no Contractor's designed portion
- delete the second option if regulations 7 and 13 only of the CDM Regulations apply;
- enter the date of practical completion

As there is only one Practical Completion Certificate, it is not numbered

### **Outstanding Items**

Where it is known to the Architect/ Contract Administrator that there are outstanding items, practical completion should not be certified without specially agreed arrangements between the Employer and the Contractor. For example, in the case of a contract where the contract completion date has passed it could be so agreed that the incomplete building will be taken over for occupation. subject to postponing the release of retention and the beginning of the Rectification Period until the outstanding items referred to in a list to be prepared by the Architect / Contract Administrator have been completed, but relieving the Contractor from liability for liquidated damages for the delay as from the date of occupation, and making any necessary changes to the insurance arrangements.

In such circumstances, either the Practical Completion Certificate should not be used or it should be altered to state or refer to the specially agreed arrangements. In making such arrangements the Architect / Contract Administrator should have the authority of the Employer.

This form F553A/B/C has been drafted with reference to:

- SBCOS published July 2005;
- ICO5 published June 2005;
- ICDO5 published June 2005

- MW05 published May 2005;
- MWDOS published May 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor, other consultants, the Clerk of Works and the Planning Supervisor.

Tick the boxes accordingly as an instruction for and record of issues

### **6.1.8 Certificate of making Good Defect**

This Certificate is intended for issue under the terms of clause 2.39 of SBC05.

This form refers to defects which were made good during the Rectification Period and those which were scheduled within 14 days of the end of the Period.

The form may be used in respect *of*

- the Works as a whole;
- a Section of the Works where the Works have been divided into Sections; or
- the 'Relevant Part' of the Works where the Employer has taken partial possession.

Certificates should **be** numbered in sequence within the job. If there are no Sections or partial possession, there will of course be only one certificate.

This form F507A has been drafted with reference to SBC05 published July 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor, other consultants, the Clerk of Works and the Planning Supervisor.

Tick the boxes accordingly as an instruction for and record of issues.

### **6.1.9 Final Certificate**

This Certificate is intended for issue under the terms of clause 4.15 of SBC05.

Users should ensure that they are familiar with the detailed requirements of clause 4.15 and related clauses.

Form F502A provides for entering the sums and balance required by clause 4.15.2. If the 'basis' is required in more detail, this could be provided by attaching a copy of the final account or a suitable summary.

Certificates are to be issued to the Employer. If the Employer intends to make any deduction from the certified amount, he must issue a notice to the Contractor. If no notice is issued, the certified amount must be paid in full (clauses 4.15.3 to 3). Interest is payable on late payments (clause 4.15.6).

### **VAT**

- a. The Employer shall in addition to the net amount payable, pay the amount of VAT properly chargeable.
- b. Note that the words 'This is not a Tax Invoice' should never be deleted.

This form F552A has been drafted with reference to:

- SBC05 published July 2005.

With any later revisions, users should ensure that the wording remains relevant.

- The original (the signed top copy) should be sent to the Employer.
- A duplicate (also signed) should be sent to the Contractor at the same time.
- Additional copies should be issued as appropriate to the Quantity Surveyor or other consultants if required.
- A copy should be retained for the File.

Tick the boxes accordingly as an instruction for and record of issues

## **WEEK 8**

### **7.0 EXTENSION OF TIME (ADJUSTMENT OF COMPLETION DATE) AND; LOSS AND EXPENSE CLAIMS**

#### **7.1 Extension of Time**

Clause 25 sets out the conditions precedent to a successful application from the contractor for an extension of time.....

#### **Relevant Events**

- Caused by employer
- Caused neither by the contractor nor the employer

#### **7.2 Loss of Expense**

##### **CLAUSE 26 - LOSS OF EXPENSE**

The main purpose of this clause is to reimburse the contractor in those circumstances where he has suffered loss and expense, and will not be reimbursed elsewhere under the terms of the contract. The Loss & Expense claim must be directly attributable to matters that have substantially affected the regular progress of the construction of the project.

**Loss** in this context means that he has been inadequately reimbursed for work carried out.

**Expense** implies that additional resources were necessary to complete the works.

The conditions of contract list various matters that could affect the regular progress of the works.

#### **NOTE:**

1. The architect may have to refer to the contract programme when making his assessment.
2. Project could be behind due to contractor's failure to be diligent - architect to assess
3. Architect will usually agree in principle but leave the settlement of the finances to the Q.S.
4. Any loss & expense amounts agreed should be added to the contract sum and paid in the next valuation.

A claim can only be made under Clause 26 where **regular progress** of the whole or part of the works **has been or is likely to be materially affected** by one or more of the specified events.



It should be noted that written application must be made to the architect by the contractor i.e. **written application is a condition precedent to a successful claim.**

The phrase **direct loss and/or expense** may appear difficult.

It is considered separately as **direct loss** and **direct expense**.

In practice, it is suggested that the phrase covers those heads of claim which would be recoverable as damages at common law according to the ordinary principles of remoteness of damage as formulated in the classic case of **Hadley v. Baxendale, (1854), 9 Exch. 341.**

The decision of the Court of Appeal in **F.G. Minter, Ltd. v. Welsh Health Technical Services Organisation, (1980), 13 BLR 1** establishes the principle that the cost to a contractor of financing the contract is part of the direct loss and/or expense reimbursable under this clause. That is, the phrase is wide enough to include interest which a contractor has paid on capital borrowed as a result of events specified in the clause, or interest which he has been prevented from earning elsewhere on capital sums which he has been obliged to expend on the particular contract as a result of the specified events.

The **cash flow** is vital to the contractor and delay in paying him for the work he does naturally results, in the ordinary course of things, in his being short of working capital, having to borrow capital to pay wages and hire charges, and locking up in plant, labour and materials capital which he would have invested elsewhere.

The loss of the interest which he has to pay on the capital he is forced to borrow and on the capital which he is not free to invest would be recoverable for employer's breach of contract, and would accordingly be a direct loss, if the regular progress of the works having been materially affected by an event specified in the clause, has involved the contractor in that loss.

The architect (Clause 26.1) is required to ascertain or (instruct the Q.S. to ascertain) the amount of direct loss and/or expense **only if:**

- \* the contractor makes written application stating that he            has incurred or is likely to incur direct loss and/or            expense not reimbursable under any other contractual provision;

- \* application is made as soon as it has become, or should reasonably have become, apparent to the contractor that the regular progress of the works or part of the works has been or was likely to be materially affected by one or more of the specified matters; and,

- \* the architect is of the opinion that regular progress is            so affected as set out in the contractor's application.

The contractor must, at the request of the architect, supply necessary information to enable the architect to form an opinion.

He is also obliged to provide details of the loss and/or expense allegedly incurred as are reasonably necessary to enable the loss to be ascertained. This obligation is conditioned on a request from the architect or the Q.S.

Thereafter, the architect shall from time to time ascertain the amount of such loss and/or expense or shall instruct the Q.S. to do so. It is mandatory to include sums thus ascertained in the computation of the next interim certificate.

In summary, a claim under clause 26 must satisfy the following conditions in order to be successful:

- Be made in time. If not in time then, whatever its merits, the architect may reject it.

- Show that the regular progress of the works or part thereof has been or is likely to be materially affected by one or more of the matters set out in Clause 26.2.

- \* Be supported by relevant information and details of the loss and/or expense.

- \* Be of such nature that reimbursement is not recoverable, if recoverable at all, under any other clause in the contract.

### **7.2.1 List of Matters**

The contractor must cite one or more of the following items in support of his claim for loss and expense.

1. Delay in the receipt of instructions, drawings, details or levels from the architect. The contractor must have requested this information in writing from the architect, and have allowed sufficient time to elapse prior to its use on site. **At the same time, the application for instructions, drawings details, etc. must not have been made too early. \*\*\***

The clause requires that the architect and the contractor to be of one mind as to when the information is required. This presupposes an agreed progress schedule which is **not a contract document**. In practice, this requirement is likely to be more workable if a documentation programme can be agreed with the architect so as to indicate the approximate time when the contractor would need instruction for the expenditure of P.C sums. If such a programme was

not produced, there will be much room for controversy, but if the architect alleges that the contractor has not made application at the proper time, this view may be challenged in arbitration.

**definitions:**

The instructions referred to are any written instructions which the architect may validly give under the contract conditions and which the contractor needs and for which he has applied in writing.

The drawings and details include those which the architect must furnish under clause 5.4, but which he has failed to do and for which the contractor has made a request in writing.

The levels referred to are those which the architect must determine under clause 7, but which he has not determined and for which the contractor has made a written request.

2. Opening up of works for inspection or testing of materials and for their consequential making good. This is providing the items were in accordance with the work specified.

There will only be a claim where the tests are in favour of the contractor. \*\*\*

3. Discrepancies between the contract drawing and contract bills.

4. Work being carried out by firms employed directly by the employer. \*\*\*

This refers to the right given to the employer under clause 29 to carry out certain works himself or through any other person, while the Works are being executed. Similarly, defaults by the employer in supplying materials or goods which he has agreed to supply are covered by the provision.

5. Postponement of any work to executed under the provisions of the contract (as in clause clause 23).

6. Failure on the part of the employer to give ingress to or egress from the works by the appropriate time. \*\*\*

7. Variations authorised by the architect under clause 13.2 or the expenditure of provisional sums. \*\*\*

**Note that clause 13.5 on valuation of variation does not contain any provision for the reimbursement of disturbance costs arising out of compliance with instructions requiring a variation or on the expenditure of provisional sums.**

\*\*\* architect is required to state in writing to the contractor what extension of time he has granted.

Finally, the amount ascertained is to be added to the contract sum.

### 7.2.2 Claims

In ascertaining a loss and expense claim actual loss has to be proved. This may be more or less than bill items. The ascertainment takes account of the consistency in method of tender pricing.

An extension of time of 5 weeks has been granted. The contractor has submitted a Loss and Expense claim in the sum of £42,415. Further, substantiation should be asked for in accordance with clause 26.1.3 of the conditions of contract.

#### Substantiation from contractor

On receipt of substantiation from the contractor, it could be proved that as a matter of fact, the contractor has recovered the losses he is trying to claim for and hence his claim reduced or dismissed as may be appropriate.

The purpose of a loss and expense claim is not to enable the contractor to make additional profit, but to put him in a financial position he would have been had no breach of contract occurred.

### 7.2.3 Assessment of Claim

Extension of Time and entitlement to loss and expense payment

Item No. Description	Extension of Time		Loss and Expense	
	Relevant event clause	Time granted	Entitle? (period in weeks)	Relevant clause
a Delay due to industrial dispute	25.4.4)	1	No)	-
b Late nomination of glazing contractor	25.4.5	1	Yes (1)	26.2.1
c Variations and additional work	25.4.5)	2	Yes (2)	26.2.7
d Exceptional delay due to the insolvency of a plastering domestic sub-contractor	NO	1	-	-

From the above summary the contractor is entitled to 4 weeks extension of time. Delay caused by the default of the contractor's domestic sub-contractor is not the employer's responsibility, under the conditions of contract.

The contractor is entitled to claim 3 weeks for any loss and expense arising out of the employer's breach of contractual obligation. The architect has not acted according to the proviso of the contract.

### **All delays fall into one of the following categories**

- Delays caused by the contractor
- Delays caused by the employer or his representative
- Delays caused by events outside the control of both the contractor and the employer (often referred to in the industry as 'shared risk event' or 'neutral events')

Although only delays caused by employers or their representatives or by neutral events are recognised by SBC clause 2.29 as relevant events which may give rise to an extension of time, clause 2.27.1 requires the contractor to give written notice to the Architect / Contract administrator whenever it becomes reasonably apparent that the progress of the works or any section is being or is likely to be delayed, irrespective of cause.

### **Delays caused by the employer or their representatives**

Certain of the relevant events recognised by the SBC clause 2.29 results from action or inaction on the part of the employer or his representatives. These are

- Compliance with the architect/ contract administrator's instruction to open up work for inspection or testing unless the test or inspection shows that all the work is not in accordance with the contract.
- Compliance with the architect/ contract administrator's instruction in regard to the expenditure of undefined provisional sums.
- Compliance with an architects/ contract administrator's instruction regarding antiquities

- Deferment of giving possession of the site or any section of the works.
- Compliance with the architect/ contract administrator's instruction requiring a variation, except those for which a schedule 2 has been accepted.
- The execution of work for which an approximate quantity is included in the contract bills which are not a reasonable accurate forecast of the quantity of works required.
- Compliance with the architect/ contract administrator's instructions in regards to any discrepancies within the contract documents.
- Compliance with architect/ contract administrator's instructions in regard to the postponement of any work
- Suspension by the contractor of the performance of his obligations under the contract as a result of the employer's failure to pay a due amount in full.
- Any impediment, prevention or default, whether by act or omission by the employer, the architect/contract administrator, the quantity surveyor or any of the employers personnel except to the extent that it was caused or contributed to by any default, whether act or omission of the contractor or any of the contractor's personnel.

### **7.3 Delays Caused by Events Outside the Control of either Parties**

There are occasions when delays arise due to circumstances over which neither the employer nor the contractor has any control. These neutral events, which are also recognised by SBC clause 2.29, are

- A statutory undertaker executing, or failing to execute, work in pursuance of its statutory obligations in relation to the works.
- Exceptionally adverse weather conditions
- Loss or damage caused by fire, lighting , explosion, storm, tempest, flood, bursting or overflowing of water tanks apparatus or pipes, earthquake, riot or civil commotion.
- Local combination of workmen, strike or lockout affecting any of the trades employed on the works or any of the goods or materials required for the works.
- Civil commission or the use of threats of terrorism and/or the activity of the relevant authority in dealing with such use or threats.
- Compliance with the architect/ contract administrators instructions in regard to what is to be done with any fossils, antiquities and the objects of interest or value that may be found on the site.

- Force majeure
- The deferment by the employer of giving possession of the site when clause 2.5 applies.

## WEEK 9

### 8.0 FLUCTUATIONS

#### 8.1 Introduction

Fluctuations may be defined as increases or decreases in wages and emoluments, prices of materials and taxes from the **base date** through to project completion.

Changes in wage rates and prices of materials over the years have made it difficult to predict the final cost of a project at the time of tender. At a time, firm price contracts were the norm and contractors were expected to bear the loss if price increases occurred and enjoy the benefits if price decreases occurred.

As a result, contractors at the time of tender tried to anticipate the price increases that were likely to occur and billed accordingly. This meant that if prices did not increase to the levels anticipated, the contractor went away with increased profits and if on the other hand prices increased beyond the anticipated levels the contractor is tempted to do shoddy work so as to cut his losses. Either way, the client is short changed.

Today, most contract forms include a fluctuation clause, which deals specifically with any increase, or decrease in wage rates and prices of materials during a contract. The conditions of contract will usually specify the extent of fluctuation to be considered. Three alternatives are possible:

**Firm price contracts:** Fluctuations are not allowed for during the contract. Contractors are expected to bear the loss if price increases occur and enjoy the benefits if price decreases occur. This is the case with Federal Government contracts whose completion period does not exceed 12 months.

**Limited fluctuations:** Fluctuations are allowed only on certain specified items. These are usually considered principal items. These are usually listed in the appendices to the bill in the list of basic prices. This is the case with Federal Government contracts whose completion period exceeds 12 months.

**Full fluctuation:** Fluctuation is allowed on all items of material and labour.



## **8.2 Factors that Influence the Decision to Include Fluctuation Provisions in the Contract**

The main reason for including fluctuation provisions in a contract is the fear of inflation. As stated earlier, in firm price contracts, contractors try to anticipate the price increases that are likely to occur and inflate their prices accordingly. If price increases however do not occur, the contractor goes away with increased profits and if on the other hand prices increase beyond anticipated levels, the contractor is tempted to do shoddy work to cut his losses. Either way the client loses. It may therefore be considered more beneficial to include fluctuation provisions so that price increases or decreases do not affect the successful completion of the project.

Also if there is some uncertainty as to the time a project will commence, it may be wise to allow for fluctuation. This protects both the client and the contractor if there is a time lapse between date of tender and time when contract commences.

## **8.3 Procedure**

Fluctuations are usually allowed for in interim valuations although no directions to that effect are specified in the conditions of contract. The assessment of the value of fluctuation is progressive and the cumulative total is added to each valuation. There are two methods of calculating fluctuations in the contract conditions.

### **8.3.1 Assessment by Analysis**

This is the traditional method and with this alternative, value of fluctuation is not subject to retention.

The most commonly used form of contract in Nigeria is the Federal Ministry of Works, LUMP SUM CONTRACT form and includes a Clause 31, which covers 'Fluctuations'. This clause reads in part:

“ The Contract Sum shall be deemed to have been calculated in the manner set out below and shall be subject to fluctuations in the events specified hereunder:

1.

- (a) The prices contained in the Contract Bills are based upon the rates of wages and other emoluments and expenses (including the cost of Employer's liability insurance and Third Party Insurance) payable by the Contractor to work people engaged upon or in connection with the Works in accordance with the rates of wages fixed by the Federation of Building and Civil Engineering Contractors (FORBACEC), current at the date of tender and applicable to the area concerned.
- (b) If the said rates of wages and other emoluments and expenses (including the cost of Employer's liability insurance and Third Party Insurance) shall be increased after the said date of signing of the Contract, the net increase or decrease of such wages and other emoluments and expenses shall be an addition to or a deduction from the Contract Sum as the case may be.
- (c) The prices contained in the Contract Bills are based upon the market price of the materials and goods specified in the list attached thereto which were current at the date of tender. Such prices are hereinafter referred to as 'basic prices'.
- (d) If after the date of tender the market prices of any of the materials or goods specified as aforesaid increases or decreases, then the net amount of the difference between the basic price thereof and the market price payable by the contractor and current when the materials or goods are bought shall, as the case may be, be paid to or allowed by the Contractor."

The Contractor is expected to give written notice to the Architect/Supervising Officer of any fluctuation in prices and he is expected to do so as quickly as possible so that all claims are settled by the next monthly valuation.

Additions or deductions made to the Contract Sum as a result of the fluctuation clause are not to alter in any way the amount of profit of the Contractor included in The Contract Sum.

The practical implications of this are as follows:

## 1. Labour

Basic wage rates are those fixed by FORBACEC current at the date of tender and applicable to that area. The 'date of tender' is taken to be 10 days before the date that tenders are expected to be returned to the client.

Payments for insurance on the workers are also subject to fluctuation since these are usually determined as a percentage of the basic wage.

## 8.4 Recording Claims under Clause 31

Contractors are expected to submit claims for fluctuations at regular intervals with supporting time sheets. The Clerk of Works is expected to sign the time sheets to certify that the work people listed actually worked on the site for the number of hours stated.

## 2. Materials

A basic price list of materials is attached to the bill of quantities. Sometimes a blank price list is incorporated in the BOQ and a tenderer is instructed to enter the materials and their market prices for which he may require adjustments. Alternatively, as with most government agencies, a standard list of items is included. Any material not listed here is not subject to fluctuation. For uniformity among tenderers some agencies send out basic price lists with tender documents, which have materials and prices, entered.

Vouchers and invoices must accompany any claims for adjustment and only net fluctuations will be taken into account. As with wage rate fluctuations, written notice of all price fluctuations must be given to the Architect as they arise.

### **Preparation of Statement of Material Fluctuation**

The contractor usually prepares this and submits to the QS for checking along with all the supporting invoices. All the materials listed on the basic price list must be adjusted and all invoices for every material appearing on the list must be submitted. Even when the invoice price is the same as basic price and fluctuation shows in the statement as nil, they must be submitted to show that the material has not been overlooked. This is also useful for checking total amounts of materials claimed for on a particular project to ensure that the contractor is not claiming for materials bought and used on other contracts.

## Schedule of basic prices

### Fluctuation – Clause 31 of the conditions of contract

The list of materials shall be limited to those, which individually form an important element in the Contract Sum.

Labour	Basic Rate
Labourers	<u>1000.00</u> per day
Artisans	<u>2000.00</u> per day

S/No.	Materials	Unit	Price
1	Cement	50 Kg Bag	2000.00
2	Sand	3.82m2 trip	6000.00
3	Aggregate	3.82m2 trip	9500.00
4	Reinforcement	Kg	75.00
5	225 x 225 x 450mm Blocks	No.	127.00
6.	150 x 225 x 450mm Blocks	No.	90.00
7.	Asbestos roofing sheets	Sheet	1060.00
8.	Gloss Paint	Gallon	2100.00
9.	Emulsion paint	Gallon	1700.00

## WEEK 10

### 9.0 FINAL ACCOUNT PROCEDURES

#### 9.1 Introduction

In an “entire contract”, ‘one party is expected to carry out all his part of the contract before he can ask the other to carry out his part’. Technically, this means that in a construction contract, once the contractor has agreed to carry out a construction project for a contract sum, he must complete the project ‘entirely’ before he is entitled to payment of the contract sum as it is without adjustment.

However, the nature of construction both for its size and complexity warrants such a contractual requirement would place a huge financial burden upon the contractor’s cash flow and working capital. The implication of this would be that the resultant interest charges would be charged to projects, thereby increasing tender prices across the industry. If contracts were to be paid in one installment upon completion, the chances are that many contractors would buckle under the financial stress thereby increasing the already high insolvency problem in the construction industry. To forestall the potential problems, most standard forms make provision for interim or stage payments within contracts.

- Modern construction involves a heavy financial outlay and spans over a considerable time frame

Very few contractors would have the capacity for such a financial burden with its attendant risk. Even if contractors could wholly finance projects in this manner, the high interest rates would be reflected in the contract sum, which may now become a problem for the client.

For these reasons, **both the contractor and the client benefit** from an arrangement where the client makes payments in installments to the contractor for work in progress. These payments in installments are based on interim valuations prepared by the quantity surveyor.

- **Construction is generally very complex and it is common to find it necessary to alter the initial design, quality or quantity of the work during actual construction.**

Most contract forms therefore provide a system for evaluating the cost of changes in design, quality or quantity of the work during the progress of the contract. These changes are known as **variations** and are measured, valued and added to or deducted from the contract sum as the case may be.

- **The time lag from start to finish of construction projects also means that prices on which the contract sum was based are likely to have changed before the construction is completed.**

Most contract forms allow for the effect of changes in price levels of all inputs into the project. These changes in price levels are valued as **fluctuations** and are added to or deducted from the contract sum as the case may be.

In effect, the contract sum agreed on at the beginning of a project is hardly the amount eventually paid to the contractor at the end of the project. It is the duty of the quantity surveyor to keep track of all the decisions made during the project that affect the contract sum and also to periodically advise on amounts due to the contractor for installment payments.

Financial statements and financial reports are also required periodically that keep track of expenditure, and give the client a good picture of the financial status of the contract and an estimate of how much more will be required to complete the project.

The final settlement of accounts at the end of the project is also the responsibility of the quantity surveyor.

**Valuations** are carried out during construction to determine the amounts due 'on account' to the contractor as interim payments and at the completion of the project a **final account** is prepared to reconcile accounts.

## **9.2 Valuations**

Valuation may be defined as a formal assessment of worth. In the construction industry, a valuation is a periodic assessment of the total value of work properly executed to date. This total value should include all or some of the following:

1. Value of work executed according to contract (i.e. *as shown on the contract drawings and described or referred to in the contract bills.*)
2. Value of any variations or changes of work
3. Value of materials and goods supplied by nominated suppliers.
4. Value of work executed by nominated subcontractors.
5. Value of materials for use in the works delivered to site or adjacent to the works (i.e. materials on site)
6. Value of fluctuations.

### **9.3 Final Account**

In the construction industry, the final account is the concluding statement of the financial transactions, which took place between the client and the contractor during construction of a project. Its preparation involves the reconciliation of the financial implications of all decisions made in the fulfilment of contractual obligations as stipulated by the conditions of contract.

The main purpose of the final account is to determine the amount due to the contractor in his final payment. The **final account figure** also gives the client the exact cost to him of the construction project.

The Final Account Figure, sometimes referred to as the Final Contract Sum is the adjusted contract sum or

#### **Contract Sum – Omissions + Additions**

The original contract sum is adjusted to take care of the following:

- Variations

- Provisional Quantities
- Prime Cost Sums
- Provisional Sums
- Claims for loss and expense
- Fluctuations

From this adjusted contract sum is deducted all previous payments to the contractor. The balance represents the final payment to the contractor.

#### **9.4 The Variation Account**

Clause 11 of the Federal Ministry of Works Standard Form of Contract defines variation as the alteration or modification of the design, quantity or quality of the works as shown on the Contract Drawings and described or referred to in the Contract Bills and includes the addition, omission or substitution of any work, the alteration of the kind or standard of any material or goods to be used in the works and the removal from site of any work or materials or goods executed or brought there by the contractor for the purposes of the works.

A variation may be either of three types:

1. A substitution:  
e.g. Omit PVC tiles in entrance lobby and substitute with in-situ terrazzo paving.
2. An Omission:  
e.g. Omit all Masonia pelmets.
3. An addition:  
e.g. Apply 'Dieldrex' anti-termite treatment to all faces of excavations.

##### **9.4.1 Ordering of Variations**

Variations must be based on Architect's Instructions. AIs must be given in writing. Even when instructions are given verbally, they must be confirmed in writing within a specified period.

AIs may arise as follows:

1. Architect issues an instruction in writing.



2. Architect issues an instruction verbally. The Contractor should confirm in writing within seven (7) days. The Architect has the opportunity during those seven days to dissent, otherwise the instruction takes immediate effect. The architect then has to confirm in writing at any later time, before the issue of the final certificate.
3. If the Contractor carries out any variation deemed necessary without authorisation, the Architect can subsequently sanction it in writing.
4. Any directions given by the Clerk of Works only become effective if confirmed by the Architect within 2 days.

Note: The second part of Clause 11.1 states, “No variation required by the Architect/Supervising Officer or subsequently sanctioned by him shall vitiate this Contract”

This simply means that the Architect may not issue a variation, which is so extensive that it totally changes a contract. For instance, in a contract to construct a 4-storey office block, an ancillary building and a garage, a variation order cannot be issued to omit the office block.

Excessive variations would have to form the basis of a new contract. *Pepper v. Burland* (1792).

The important thing for the QS is that the Architect has to sanction in writing a variation before he can value it. In presenting the variation account, the Qs should make reference to the relevant written order for each variation valued.

Not all AIs constitute variations, but where they do, the QS is expected to measure and value the variations while giving opportunity to the contractor or his representative to be present at such measurement and to take notes.

Architect's or Contract Administrator's Instructions (**A.I.**) that constitute variations are usually written in triplicate:

- One copy is sent to the contractor
- One copy goes to the quantity surveyor
- One copy is retained by the architect or contractor administrator

Each **A.I.** constituting a variation must give the following information:

- Title of contract
- Name of contractor
- Date and serial number of **A.I.**
- Full details of the variation accompanied by appropriate drawings where necessary
- Architect's signature

Where the AI involves the adjustment of PC sums, particulars must be given of the estimate to be accepted stating the date of the quotation and the reference number. The architect and quantity surveyor copies of the variation order may include the approximate cost of the variation and if required, a summary of the balance remaining in the contingency sum.

The architect usually allowed to use their discretion in instructing variations where they are:

- i. Unavoidable and essential for the contract to proceed
- ii. Of a minor, routine nature with minor cost implications
- iii. Urgently required

The employer's prior approval is however required where the variation is significant in terms of design or cost.

#### Measurement of Variations

Variations should be measured and valued as quickly as possible for the following reasons:

1. The variation account can be completed within a reasonable time after completion of the work.
2. The financial effect of the larger and more important variations can be settled in time so that their value can be included in interim certificates and in financial statements to the employer that are issued from time to time.

Each variation is measured carefully and proper records are kept as each occurs. This makes the preparation of the variation account during final accounting a simple process.

The Federal Ministry of Works form of contract clearly states that the responsibility for the preparation and evaluation of variations is with the consultant quantity surveyor. However many practices allow the contractor's quantity surveyor to prepare and value the variation and then submit for approval. The JCT 2005 has formalised this procedure by making it an option for the valuing of variations. The rules of measuring and valuing variations however remain the same no matter who is doing the work.

Revised drawings incorporating variations when received by the quantity surveyor should be stamped with a large red "V" or "post -contract" a predetermined position to distinguish them from the original drawings. It is also necessary to mark the drawings with the date of receipt. If the variation drawings supersede some contract drawings, those should be marked and identified as such in order to reduce the risk of using outdated information in the preparation of the final account.

It is helpful to maintain a separate file for architect's instructions with other correspondence related to variations. This will be helpful in clarifying the designer's intent and thereby making measurement easier.

Arrangements must be made with the contractor's representative on site and the clerk of works to keep accurate records of work that will subsequently be covered up. E.g. depth of foundations, steps in foundations and thickness of hardcore.

If accurate drawings, drawn to scale are issued as part of the variations, then the variation is measured from these drawings. If however only sketches are issued by the architect, then site measurement has to be carried out for the variation in question. Some situations may require a combination of both procedures e.g. additional foundations and drainage work where dimensions of trench or pit excavation shown on drawings may vary from the actual quantities of work carried out on the site.

Site measurement may be taken and entered in a “dimension book” and the dimensions worked up later in the office. Alternatively, a schedule of items to be measured can be prepared in the office and taken to site and used as a check list or drawings are made in the office which can now be dimensioned and annotated on site using actual measurements and observations.

Omissions are usually extracted from the quantity surveyor’s original dimensions on the take off sheets except in cases where whole items or sections of the bill are omitted, in which case reference can be made to the appropriate bill items. The quantity surveyor should be prepared to make the original dimensions available for inspection by the contractor’s representative.

The quantity surveyor must also give the contractor opportunity to be present or represented when site visits are made for the purpose of measuring variations.

It is important to keep omissions and additions separate and distinct and by convention,. The words ‘omit’ and ‘add’ are written as a heading for each set of dimensions relating to an omission or addition as the case may be. Some practice use different colours of ink to measure additions and omissions.

Each item of variation should be headed with the reference number of the architects instruction, the date issued and the date carried out and a brief description of the of the content of the instruction

#### **9.4.2 Valuation of Variations**

Pricing of variation items is governed by the following rules:

1. Where identical work is already priced in the bill, the bill rate is used.
2. Where work is not identical but similar, the bill rate is used as a basis for calculating a new price.

3. Where it is not practicable to apply a bill rate directly or as a basis, a fair valuation must be made and agreed by both parties.
4. Where work cannot be properly measured and valued, the contractor is allowed the prime cost of resources employed (Daywork) with percentage additions to each section of the prime cost. These percentage additions and rates would already have been set out by the contractor in the appendix to the contract.
5. All omissions from the contract are valued at the rates contained in the contract bills unless the omission of such work is so extensive that it varies the contract conditions under which the remaining work is to be carried out, then the remaining work is re-valued using the original bill rates as basis.
6. Where the architect thinks that a variation has involved the contractor in direct loss or expense for which he will not be recompensed under any of the above considerations, then the architect or quantity surveyor is to ascertain the amount and it is to be added to the contract sum. E.g. work that will involve re-erection of scaffolding after it has been dismantled and removed from site.

## **WEEK 11**

### **10.0 CONTRACT PROCEDURES - VALUATION PROCEDURES**

#### **10.6 Introduction**

- Why do we use interim valuations?
  - Size of Job
  - Cost of finance
  - Standard form of contract
  - Employers interest
  - Housing Grants, Construction and Regeneration Act 1996
- Key Point: Interim Valuations are Approximate

#### **10.7 Frequency of Valuations**

- JCT SBC 05 provision
  - Monthly
  - Prepared by QS
  - Issued by Architect
- Value = Completed works
- Fixed Valuation Date

#### **10.8 Importance of Valuation**

- A To Contractor:**
  - Affects Cash Flow

- Fluctuations
- Internal Accounting

**B To Employer:**

- Affects Cash Flow
- Time for authorisation (local Authority)

## **10.9 Legal Issues – Negligence**

- Failure to certify correctly could be negligence
- House of lords has reversed the status of ‘quasi-judicial’ status – Immunity
- Case of Michael Sallies & Co ‘v’ Calil and William F Newman & Associates (1987)  
13 ConLR 69

## **10.10 Payment Procedure**

### **10.10.1 Grounds to withhold payment**

- 11 JCT1998 – Give specific grounds for Set off under the Contract
- 12 JCT2005 – considered under Clause 4.13.2
- 13 Specific rights still exist under the JCT 05

### **10.5.3 Rights to set off**

- Insurance – Clause 6.4.3
- Liquidated Damages – Clause 2.32
- Termination - Clause 8.7 & Clause 8.8
- Defects – Clause 2.38
- Non-Compliance with architects instructions – Clause 3.11

#### **10.5.4 Contractors rights for non-payment**

- Failure to pay the contractor – employer must pay ‘simple interest’ on outstanding payments (Clause 4.15.6)

##### **What is simple interest**

Simple Interest is “interest calculated on a principal sum and not on any interest that has been earned by that sum”

#### **10.6.4 General Procedure**

- Value works to date (on valuation day)
- Value unfixed materials
- Deduct retention amount
- Deduct Previous payments
- General Procedure
- Some other considerations
  - Under-valuing of works
  - Importance of joint agreement
  - Preparing the valuation
    - Contractor values
    - QS values
    - Unfixed materials

#### **10.7 Constituent Parts of Valued works**

1. Prelims
2. Main Contractors Work
3. Variations



4. Unfixed materials & goods
5. Statutory Fees & Charges
6. Nominated sub-contractors work
7. Nominated suppliers work
8. Fluctuations in costs
9. Retention

#### **10.6.3 Valuing Measured works**

- Task One – Value the measured works .
- Task Two – Value the measured works adjusting for earlier payments.

#### **10.6.4 Valuing Prelims**

**Prelims can be broken down into three categories:**

- Cost Related
- Time Related
- Fixed Charge
  - i. Commencement
  - ii. Completion

11 Tasks for Workbook

12 Please complete task three from the workbook

#### **10.6.6 Variations**

- 1 Variations must be included within interim Payments (Clause 30.2.1.1)

- 2 Variations must be valued before next valuation

### Including Variations

2 Options:

- i. Pay the full amount of the measured works and adjust on variation
- ii. Exclude the item in the measured works and pay on variations

### Dayworks

1. Dayworks are valued in accordance with the RICS Definition of prime cost of dayworks.
2. Valued based on actual cost + percentage allowance for overheads and profit (taken from contract Document)

### Dayworks Example

Replacing an internal door

#### Labour

Joiner 2hrs @ N800.00 1600.00

Allowance from bill 110% 170.60

#### Materials

Door – Travis Perkins £1500.40 N1500.40

Allowance from bill 25% N 300.85

**Total N5200.85**

- Tasks for Workbook
- Please complete task four from the workbook (p.5)

### 10.6.7 Nominated Contractors

- Works valued in same way as measured works.
- Contractors profit and attendance is allocated *Pro-Rata*.
- Contractor must provide proof of payment from the preceeding month.
- If contractor fails to pay nominated contractor is allowable time – employer can make the payment.

### **10.6.8 Nominated Suppliers**

- The value of goods provided should be paid provided the goods are properly protected and stored.
- The good must also be free from damage and not defective.

### **Tasks for Workbook**

Please complete task five from the workbook (p.6)

### **10.6.6 Unfixed materials and Goods**

- Materials 'On Site'
- Materials 'Off Site'

#### **Materials On-Site**

#### **Unfixed materials and goods delivered to the site**

- Must always be included provided they meet the conditions precedents set within the contract.
- Conditions Precedents:
  - They are not removed from site
  - Not prematurely delivered
  - Adequately protected
    - Loss
    - Damage
  - Become property of employer after payment
  - Insured against loss and damage from risks specified in section 6.
  - Contractor remains responsible for all materials (loss and damage) after transfer of ownership to employer.

### **Materials Off-Site**

- Unfixed materials and goods stored at the suppliers or location other than the site.
- 'Listed Items' must be included If the conditions precedents are met.
- The items are listed in accordance with contract
- Contractor has ownership of materials/goods
- Insured against loss or damage to their full value

### **Items listed are stored with:**

- Label stating employer as person who's order they belong
- Their destination as the site address.
- Set aside from rest of materials/goods
- Clearly labelled with pre-determined code
- For uniquely listed items – Contractor has provided a bond as specified in the particulars **if** required
- For listed items – Contractor has provided a bond as specified in the particulars.

### **10.6.10Provisional Sums**

1. All Sums must be deducted from contract sum (Clause 4.3.2.2)
2. Expended using architects instructions (Clause 3.16)
3. Valued as with variations

### **10.6.11Retentions**

Read Clauses 4.18 – 4.20 inclusive

- Tasks for Workbook
- Please complete task six from the workbook (p.6)

#### **10.6.12 Issuing the certificates**

- We will look at the Architects Certificate only.
- The QS will issue another type of certificate to the Architect to advise on payment.
- Transfer the data from the valuation exercises into the payment certificate.
- Assuming the dates as Today being 12 days from the issues of the contractors valuation

#### **Tasks for Workbook**

Please complete task seven from the workbook (p.6)

## **WEEK 12**

### **10.7 DAYWORK**

Daywork is a method of payment for work based on the prime cost of all labour, materials and plant used in carrying out the work, with a percentage addition to the total cost of each of the three groups of items to cover for overheads and profit. The percentages are usually agreed prior to the execution of the work and are inserted by the contractor in the appendix to the Contract Bills.

The Federal Govt standard form of contract specifies that where there is no previously agreed schedule of daywork, the contractor should be allowed 25% on the net cost of labour and materials used. The net cost of labour is calculated on the minimum wage fixed by the Federation of Building and Civil Engineering Contractors (FOBECEC). The net cost of material is the actual cost of the material purchased specifically for the work or material used from the contractors stock and charged at current market prices plus a reasonable allowance for handling.

Plant and plant operative rates allowed in daywork, do not include fixed plant, small tools and workshop equipment, which are already allowed for in preliminaries.

#### **10.7.1 Recording Daywork on Site**

The contractor is expected to record on vouchers, the actual time spent on the work, usually with the worker's names entered, the materials used and the type of plant and hours spent on the work. These vouchers known as daywork sheets are usually specially printed sheets, which are filled out in triplicate and should be signed by the clerk of works and site agent or foreman. The verifying signature of the architect or clerk of works relates to the amounts of labour, materials and plant used. The quantity surveyor however must check each sheet to ensure that amounts inserted are not excessive. Prices inserted are those current at the time the work is carried out and not those operative at the date of tender.

Each daywork sheet must relate to a specific architect's instruction and the reference numbers need to be stated. The vouchers or sheets must be submitted for verification not later than the

end of the week following that in which the work has been done. This of course implies that daywork records must be prepared weekly. Nominated subcontractors should first submit their vouchers to the main contractor who will then include his own attendances and submit new vouchers to the architect or his representative.

The daywork account is built up from these daywork sheets and then totalled and included in the variation account.

## **10.8 Adjustment of Provisional Quantities**

All measured work in the Contract Bills which have been marked PROVISIONAL e.g. substructure work, must be re-measured when the actual work has been carried out. To adjust for these items in the final account, the entire section marked provisional in the bill is omitted and replaced with the actual work as measured on site. Even when the provisional quantities in fact represent the actual work done, the same procedure is followed since this shows that the re-measurement has not been overlooked.

Actual dimensions are taken from site and a bill of re-measured work is produced and priced using bill rates.

### **10.8.1 Adjustment of Provisional Sums and Prime Cost Sums**

Provisional sums are reserved for work or for costs, which cannot be entirely foreseen, defined or detailed at the time, the tender documents are issued. The standard form of contract with BOQs specifies that the architect shall issue instructions in regard to the expenditure of prime cost sums and provisional sums included in the contract bills and of prime cost sums, which arise as a result of instructions issued in regard to the expenditure of provisional sums.

Where the main contractor carries out work covered by a provisional sum, the work is subsequently measured and valued in accordance with the same rules that apply to the

valuing of variations. Where a sub-contractor nominated by the architect work carries out covered by a provisional sum, it is treated as a prime cost sum.

Prime cost sums cover work to be done by nominated subcontractors or goods or materials to be supplied by nominated suppliers. Quotations are collected from the nominated subcontractors and suppliers and when accepted, they get approval to carry out the work or the supplies as the case maybe. The main contractor earns some profit on all PC sums and is paid some attendance for the use of his facilities by the nominated subcontractors, but not suppliers.

Where the main contractor has been permitted to submit a tender for work covered by a PC sum, he is only allowed profit if he has tendered in competition with other subcontractors. If he alone has tendered for the work, it is assumed that he has included his profit in his quotation. The contractor should be informed of this at the time he is invited to tender. A main contractor cannot attend himself, so any amounts included for general attendance will not be paid to him. He is however paid amounts inserted for special attendance.

In either case, the Contract Sum is adjusted by omitting the amount of the PC Sum, including, profit and attendance and adding the accepted quotation of the subcontractor or supplier with the associated profit and attendance.

## **10.9 Interim Valuations**

An interim valuation should be as accurate as is reasonably possible. An under-valuation would be unfair to the contractor and may aggravate his cash flow problems. An over-valuation on the other hand will result in overpayment and this creates problems if the employment of the contractor has to be determined for any reason.

Although it is the prime responsibility of the consultant quantity surveyor to prepare a valuation, it is quite normal for him/her to do this together with the contractor's quantity surveyor or representative. This ensures that areas of disagreement are ironed out quickly and harmony is maintained during the project.



Nominated subcontractors should be notified by the main contractor of the dates for valuations and they are required to submit statements covering their work by those dates.

The Federal Ministry of Works conditions of contract states that interim certificates should be issued at regular intervals at the periods stated in the appendix to the contract. If no period is stated, it is assumed to be monthly. The certificate once issued must be honoured within the period stated in the appendix to the contract. If none is stated it is assumed to be 28 days. The JCT specifies 14 days.

According to the Federal Ministry of Works conditions of contract and the JCT, default by the Employer gives the Contractor grounds for determining his employment. Other variations in use in Nigeria allow the Contractor to apply for extension of time for delay in honouring of certificates.

Clause 30 of the conditions of contract which deals with certificates and payments states that an interim certificate must state:

1. The total value of the work properly executed. The Architect is within his powers if he withholds payment in respect of work not properly executed.
2. The total value of the materials and goods delivered to or adjacent to the work.
3. Amount deducted for retention by the Employer
4. Any instalments previously paid.

The significance of is that each interim valuation is cumulative. It first of all assesses the gross value of all the work done to date on the project, whether by the main contractor or the nominated subcontractors; whether according to contract or as a variation. From this gross

value, the Employer retains a certain percentage (retention) and then deducts instalments previously paid.

In summary, the main items to be considered in preparing an interim valuation are:

1. Value of measured work executed as contract, including:
  - Preliminaries
  - Substructure
  - Superstructure
2. Value of any variations
3. Value of materials and goods supplied by nominated supplier
4. Value of work executed by nominated subcontractor
5. Value of materials for use in the works properly delivered to site or adjacent to the works
6. Value of fluctuations where applicable
7. Retention
8. Previous payments.

**10.9.1 Typical Interim Valuation**

**ADMINISTRATIVE BLOCK**

Valuation No. 4

**1 Estimated total Value of Work executed as Contract**

a Preliminaries	932,757.62	
)		
b Substructure	2,999,055.80	
)		
c Superstructure	<u>9,374,164.04</u>	
)		
		13,305,977.46

2 Variations	Omit/Add	791,615.00
--------------	----------	------------

**3 Nominated Suppliers' Work to Date.**

Handy Tiles Ltd: Clay tile roofing	876,000.00
------------------------------------	------------

Profit: 5%	<u>43,800.00</u>
------------	------------------

919,800.00

4 Nominated Subcontractors' Work to Date.

Reno Metalworks: Door and window frames	477,200.00
---	------------

Profit: 5%	23,860.00
------------	-----------

Attendance	<u>13,500.00</u>
------------	------------------

514,560.00

5 Materials on Site	<u>128,000.00</u>
---------------------	-------------------

15,659,952.46

6 Deduct Retention: 5%	<u>782,997.62</u>
------------------------	-------------------

14,876,954.84

7 Fluctuations:	Add/Omit	<u>342,450.00</u>
-----------------	----------	-------------------

15,219,404.84

8 Deduct Previous Payments	<u>11,879,255.48</u>
----------------------------	----------------------

Amount Recommended for Certification	<u><u>3,340,149.36</u></u>
--------------------------------------	----------------------------

## **WEEK 13**

### **10.10 PREPARATION OF INTERIM VALUATIONS**

This handout is a stage-by-stage guide to preparing interim valuations in accordance with JCT SBC 2005. The handout has been designed to supplement the lectures, which will be given at each stage in the valuation process to explain several of the contractual clauses, which are to be considered during the valuation.

#### **Step One – Measured works – works undertaken up to the given date**

The initial stage in the process of undertaking a valuation, as either the contractor or the Client, the Quantity Surveyor or Building Surveyor or other party acting in these roles will initially visit the site and value works completed to date.

The first task in this handout relates to valuating completed works on a school extension scheme.

Complete the tasks below, which relate to the valuation of works, completed using the information given in Appendix One.

#### **Student Task One:**

Calculate the works completed at valuation 10 on the scheme.

**We are only dealing with measured works at this stage do not make any other assessments or deductions**

#### **Stage Two - Preliminaries**

The second stage in the process of undertaking a valuation, is to deal with the contractors preliminary costs (these are costs associated with things including welfare facilities etc) which will be defined under Section A of SMM7

Complete the tasks below, which relate to the valuation of the preliminary element of the contract, using the information given in appendix one:

### **Student Task Two**

Breakdown the prelims and enter the details in the table below.

<b>Preliminary Items</b>	<b>Time Related</b>	<b>Fixed Charge</b>	<b>Total</b>
Management			
Water			
Electricity			
Welfare Facilities			
Fencing			
Site Storage			
Fork Lift Truck			
Lighting and Heating			
Small Plant and Tools			
Total			

Now we have decided and apportioned the preliminary figures in terms of the two columns, we have to value the works. This occurs in two stages:

#### **Stage One: Time Related Prelims**

Time related prelims are the weekly charge for various items which are essential to the works and for which the contractor would make payments on either a weekly or monthly basis. Although these are calculated at a weekly rate, these are paid in a monthly valuation.

### ***Calculation formula***

$$\text{Prelim Weekly Charge} = \frac{\text{Total value of Time related prelims}}{\text{Project Duration (in weeks)}} \times \frac{\text{Number of weeks completed}}{\text{completed}}$$

### **Stage Two: Fixed Charge Prelims**

Fixed charge prelims are the various items which are essential to the works and for which the contractor would expend the cost of at either the very start or very end of the scheme. As such these are paid in the first and last valuation on the project.

### **Student Task Three**

Value the prelims associated with valuation 10 for the school extension using the information given in appendix A

### **Step Three – Variations and Dayworks within the Valuation**

The third stage in the process of undertaking a valuation is to deal with the contractor's variations (which have been issued) and Day work claims.

#### **Valuing Dayworks**

Dayworks claims will have been approved by the Contracts Administrator; the process of valuing such is simple,

1. Check the supporting evidence for the figures is provided
2. Identify the additional percentages within the dayworks bill
3. Add these percentages to the figures claimed
4. If the work has been undertaken make the payment within the valuation

### **Student Task Four**

Value the dayworks and Variations section of the valuation on the school extension (Valuation 10)

*Remember –*

- 1. On the PowerPoint two methods of valuing variations were explained, select and apply one of these strategies.*

#### **Stage Four - Addition of Materials**

The fourth stage in the process of undertaking a valuation is to deal with the contractor's claims for materials (on or off-site).

Within the valuation presented the contractor should have broken this down in detail and presented the claim in accordance with the clauses of the JCT. (Please refer to your notes from the PowerPoint.)

#### **Student Task - Five**

Value the materials on and off site element of the interim valuation for the school extension

#### **Stage Five - Addition of Provisional Sums and dealing with retention**

##### **Provisional Sums**

Provisional sums should be claimed against a corresponding Architects instruction – as such are valued within the variations section

##### **Retention**

Retention on the contract is at the recommended amount stated within the JCT contract, typically 5%, reduced to 2.5% after practical completion. (see your notes from the PowerPoint regarding purpose of retentions)

#### **Student Task - Six**

Value the materials on and off site element of the interim valuation for the school extension



### **Stage Six – Deduct Previous Payments**

By this stage we will have calculated the total gross valuation owned to the contractor, as such the gross valuation will not have made allowances for previous payments.

### **Student Task Seven**

Calculate the total gross valuation and deduct previous payments assuming a valuation at month 9 of £125,000.00

### **Final Stage – The valuation is complete you must now complete the JCT standard Payment Certificate**

### **Student Task Eight**

Complete the attached paperwork for interim payment 10 based on the information calculated in the various stages above

## **WEEK 14**

### **10.11 Valuation Exercise**

Appendix 1 attached shows the tender submission details and actual progress achieved on site up to valuation No. 10, on a typical construction project.

- (a) Allocate the preliminaries to “cost related” and “lump sums” sections (Use form Appendix 2).
- (b) Produce a valuation for work executed up to 01/12/10 (Valuation No. 10) assuming a contract duration of 12 months.
- (c) Prepare a statement of retention for both the main contractor and nominated subcontractors.

#### **APPENDIX 1**

#### **TENDER SUBMISSION DETAILS**

##### **Bill No. Preliminaries**

A	Supervision	£ 14,000.00
B	Plant	1,200.00
C	Scaffolding	1,200.00
D	Welfare Facilities	2,100.00
E	Site Huts	1,000.00
F	Site Telephones	400.00
G	Temporary Lighting & Power	400.00
H	Programme	200.00
J	Watching	1,250.00
K	Site Hoarding	1,800.00
L	Temporary Roads	950.00
M	Setting Out	400.00
N	Drying the Works	500.00

O	Cleaning Away Rubbish	500.00
P	Water for the Works	727.00
Q	Insurance Against Injury to Person and Property	3,401.00

Total Bill No. 1                      £30,028.00

**Bill No. 3 External Works**

A	Soiling and Seeding	£ 4,082.16
B	Paths and Pavings	6,111.27
C	Retaining and Screen Walls	2,017.33
D	Drainage	9,127.16
E	Fencing	1,812.19

Total Bill No. 3                      £ 23,150.11

**Bill No. 2 Measured Work**

A	Demolition	£ 1,200.00
B	Excavation and Earthwork	11,526.16
C	Concrete Work	29,526.41
D	Brickwork and Blockwork	31,416.12
E	Roofing	14,112.16
F	Woodwork	35,516.44
G	Plumbing and Mechanical Installations	18,642.12
H	Electrical Installations	9,216.14
J	Floor, Wall and Ceiling Finishings	17,316.18
K	Glazing	4,127.13
L	Painting and Decorating	12,011.14
		£184,610.00

#### **Bill No. 4 Prime Cost Sums**

##### **Nominated Sub-Contractor**

A	Piling		£ 8,500.00
B	Profit	5%	425.00
C	General Attendance	item	170.00
D	Specialist Landscaping		27,000.00
E	Profit	5%	1,350.00
F	General attendance	item	600.00

##### **Nominated Suppliers**

G	Kitchen Equipment		18,000.00
H	Profit	5%	900.00
J	Sanitary Fittings		12,000.00
K	Profit	5%	600.00
L	Ironmongery		5,000.00
M	Profit	5%	250.00

##### **Statutory Undertakings**

N	Water Main Connection		1,200.00
O	Profit	5%	60.00
P	Gas Main Connection		500.00
Q	Profit	5%	25.00
R	Electrical Main Connection	5%	500.00
S	Profit	5%	25.00
T	Sewer Connection		1,400.00
U	Profit	5%	70.00

Total Bill No. 4      £78,575.00

### **Tender Summary**

Bill No. 1	Preliminaries	30,028.00
Bill No. 2	Measured Work	184,610.00
Bill No. 3	External Work	23,150.11
Bill No. 4	Prime Cost and Provisional Sums	78,575.00
Bill No. 5	Daywork	9,050.00

<b>TOTAL TENDER SUM</b>	<b>£325,413.11</b>
-------------------------	--------------------

### **Date of Valuation No. 8 - 2 3/11/02**

#### **Bill No. 2**

Item A complete  
Item B complete  
Item C complete  
Item D complete  
Item E complete  
Item F 50% complete  
Item G 40% complete  
Item H 40% complete  
Item J 20% complete  
Item L 10% complete

#### **Bill No. 3**

Item A 20% complete  
Item B 20% complete  
Item C 40% complete  
Item D 40% complete

#### **Bill No. 4**

Item A complete

Item D £8,600

Item G £8,000

Item J £6,000

Item L £2,000

Item N complete

Item P complete

Item R complete

#### **Bill No. 5**

Variations £9,000.00 agreed.

Materials on Site £6,237 agreed.

The following AI's were received from the Architect in respect of the following Prime Cost and Provisional Sums:

1. Accept a quotation of £10122.50 from Keane & Bonney Piling Ltd.

It was observed that the Piling nominated sub-contractor had erroneously left out the main contractor's discount in their quotation for the works.

**Effect the necessary corrections before valuation.**

2. Accept a quotation of £27500.00 from Landson Landscape plc.
3. Accept a quotation of £19012.00 from Kitchen & Sons for the supply of kitchen fittings.
4. Accept a quotation of £13176.00 from Loo Ltd for the supply of sanitary fittings.
5. Accept a quotation of £8820.00 from Smith & Smith for the supply of ironmongery.

## **APPENDIX 2**

### **JCT 80**

#### **Breakdown of Preliminary Items**

	Cost Related	Time Related	Lump Sums		Total
			Start	Finish	
Supervisor					
Plant					
Welfare					
Site Huts					
Telephones					
Temporary Lighting and power					
Programme					
Watching					
Site Hoarding					
Temp Roads					
Setting Out					
Drying the works					
Cleaning Rubbish					
Water					
Insurance					
TOTALS					

## **WEEK 15**

### **11.0 INSURANCE AND BONDS**

#### **11.1 Why Do Contractors Take Out Insurance?**

##### **Compulsory (required by statute)**

- Road Traffic Act 1972
- Employer's Liability (Compulsory Insurance) Act 1969
- Public Liability Insurance Finance (No2) Act 1975

##### **Required by Contract**

- JCT '98 Clause 21 – Personal injury or death damage to property
- JCT '98 Clause 22 – All Risk Insurance

##### **Spread the risk**

- Common sense and good business practice.

#### **11.1.1 Employer's Liability (Compulsory Insurance) Act 1969**

Requires an employer (Contractor, sub-contractor, PQS, etc.) to insure employees, for an unlimited amount, against injury sustained as a result of their employment. The employer is also required to insure against vicarious liability arising from injuries caused by one employee to another.

##### **Finance (No2) Act 1975**

This Act indirectly imposes compulsory public liability insurance on sub-contractors. The sub-contractor must have some public liability insurance in order to obtain a tax exemption certificate.



### 11.1.2 General Principles of Insurance Law

A contract of Insurance is a legal agreement between two parties which must comply with the basic legal principles of contract law. One party (the insurer) agrees in return for a consideration (the premium) to pay another person (the insured) a sum of money, or its equivalent, upon the happening of certain specified events.

Before a person can effect a policy of insurance, he must have an insurable interest in the subject matter Lucena v Crawford [1806]. He must benefit from the well being of the subject matter and be prejudiced by harm to it. Example – You cannot insure a house against damage if you have no interest in the house. Conceivably, you might wish to arrange for its destruction because you have nothing to lose and the insurance money to gain.

Insurance contracts are contracts of the utmost good faith (*umberrimae fidei*). The insured's duty is not simply discharged by the insured replying truthfully to all the questions on the proposal form. All material facts which might affect the underwriter's mind must be disclosed. For example, if you know that there is an unexploded bomb somewhere in your garden, then perhaps you should disclose the fact to your house insurer.

The principle of subrogation is applied when a claim has been settled. It means that the insurer stands in the shoes of the insured.

Contribution is the right of insurer who has paid out under a policy to call on other insurers for a contribution towards the payment. The insurances must cover the same interest, the same subject matter and the same peril.

Contra Proferentem Rule – If there is ambiguity of meaning in a document, the document will be construed against the party that has drawn up the document. The interpretation less favourable to the insurer is usually taken.

If a Condition Precedent is not complied with, an insurance contract may be rendered unenforceable. In some cases the courts may deem the condition precedent a “stipulation”, in which case a breach does not occur. The insurer however may be able to claim damages.

### **11.1.3 Insurance Policies**

This is only background information. Use a broker who is experienced in dealing with the construction industry to sort out your insurance requirements.

#### **Employer's Liability Insurance**

Employers are under a statutory obligation to provide this cover – Employer's Liability (Compulsory Insurance) Act 1969.

If an employee injures a third party through negligence (drops a brick on a passerby), cover is provided by Public Liability Insurance. If one employee injures another, or an employee trips and falls down the stairs – cover is provided by Employers' Liability Insurance.

The premium is usually based on the insured's wage roll. The premium is paid in advance based upon an estimate and adjusted when the actual figures are known. A no claims bonus system usually operates.

Employers' liability cover should in most cases be extended to cover Labour Only Sub-contractors as they are treated as the contractor's own employees despite the absence of a contract of service. Most insurers will insist that labour only sub-contractors are also covered by a Public Liability Policy.

Always check hire agreements for the position regarding hired plant operators – the same may apply to them.

#### **Public Liability Insurance**

There is no standard policy which makes commentary difficult.

The policy usually carries an **excess** and the premium is usually based on wage pay roll.

Public Liability Insurance cover is a requirement of all the common standard forms of contract.

## **The contractor's All Risk Policy**

It is a material damage policy. Think about extending it to cover consequential loss. For example, the cost of delay caused by fire can prove very expensive. Under the contract the contractor gets an extension of time and that is all

Consider also extending the cover for:

- Goods in transit to the site
- Materials off-site which have been paid for and become the property of the Employer.

Policies usually cover the cost of additional professional fees (Architect's fees, QS's fees, legal fees, etc) arising from the reinstatement work.

NB:

The cost of preparing a claim against the insurers is not usually covered.

### **11.1.4 Other Policies**

#### **Contractors plant and equipment –**

ICE Conditions require the contractor to insure plant. This is probably because of the Employer's right to sell-on after determination of the contractor's employment.

Hired plant – Check the hire conditions.

#### **Fidelity Guarantee Insurance –**

Covers against fraud and dishonesty of employees. Eg, if an employee 'does a runner' with the payroll.

Credit Insurance – Bad debts.

Motor Insurance.

Insurance policies are a mine field – You should now realise that you need a broker with a sound knowledge of the construction industry. A broker cost you nothing as the insurance company pay the commission.

## **11.2 Indemnity and Insurance Clauses**

These notes will only consider the indemnity and insurance provisions of JCT 98

Indemnity to persons and property and indemnity to the Employer – Clause 20.

Indemnity – “security against damage or loss; compensation”

The contractor and the employer are Joint Tortfeasors. It means that if a brick lands on your head or dents the top of your car, you can choose to seek compensation from either the contractor or the employer. Naturally the injured party goes for the one with the most money.

### **Indemnity in respect of injury to persons (20.1)**

The contractor indemnifies the employer except where the employer or any person for whom the employer is responsible (Architect, QS, or others engaged under clause 29) is negligent.

Here the contractor is agreeing that if he drops a brick on a passerby, and the passerby sues the employer, the contractor will meet the employer’s costs.

Where the contractor is sued as a result of the employer’s negligence, the contractor must meet the claim and seek to recover from the employer under the Law Reform (Married Women and Tortfeasors) Act 1935.

Note – If the contractor wishes to avoid a claim, the onus of proof is on the contractor to show that the employer has been negligent.

## **Indemnity in respect of injury to property (20.2)**

The contractor indemnifies the employer where there is negligence, omission or default by the contractor or those for whom he is responsible.

Unlike clause 20.1 the onus is upon the employer to prove that the contractor has been negligent.

## **Insurance against injury to persons and property – clause 21**

This clause requires the contractor to provide insurance cover to support the indemnities he has given under clause 20. What is an indemnity worth if the man giving it has no money?

21.1.1.1 The main contractor and his sub-contractors are required to maintain insurances to support the two categories of indemnity in clause 20.

21.1.1.2 Governs the minimum amount of public liability cover. If the contractor does not think this is enough he should insure for more – remember there is no limit on his indemnity.

21.1.2 The employer is entitled to check that the contractor (and his sub-contractors are maintaining proper insurances.

21.1.3 If the contractor or sub-contractor fail to maintain an insurance in accordance with the contract, the employer may insure and deduct the cost from monies due or recover the cost of the insurance as a debt.

Consider the following case:

During the piling operations, property adjoining the site was damaged. The piling work was not carried out negligently. The employer was sued by a third party whose property was damaged. The employer brought an action against the contractor to recover his costs. Gold v Patman & Fotheringham [1958]

In this case the employer could not recover from the contractor under the terms and conditions of the indemnity, the contractor had not been negligent. The provisions of clause 21.2 provide the employer with an option. (Read clause 21.2 and refer to the contract appendix).

## **Insurance of the Works - Clause 22**

This is the insurance of the actual building under construction. The contractor is required to maintain All Risks Insurance against such events as the destruction by fire of the unfinished building. This is important as not even Tarmac could afford to re-build a project like the Manchester Commonwealth Games Stadium.

It is not in the contractor's interest to avoid this type of insurance since the contractor is liable under clause 2 to "....carry out and complete the works .....". Clause exists to protect both employer and contractor from severe financial disaster.

It must be stated in the Appendix which sections is to apply: 22A, 22B or 22C.

## **11.3 Bonds**

Bond: interest-bearing certificate sold by corporations and governments to raise money for expansion or capital. An investor who purchases a bond is essentially loaning money to the bond's issuer in return for interest. The investor can hold the bond and collect interest payments or sell the bond to a third party.

### **11.3.1 Types of Bonds**

- Bid/tender bond
- Performance bond
- Contractors all risk