CHAPTER 4 - HISTORICAL BACKGROUND OF THE FIDIC CONDITIONS OF CONTRACT AND ITS APPLICATIONS TO BUILDING CONSTRUCTION WORKS

4.1 Introduction

The main aim of this chapter is to;

(i) Study the history of FIDIC and FIDIC conditions of contract; and

(ii) Find out the applicability of FIDIC conditions of contract for building construction works. Also this chapter covers some of the notable characteristics of building and civil engineering construction works in general.

4.2 What is FIDIC

FIDIC is the acronym of the French title of the International Federation of Independent Consulting Engineers - La Fédération Internationale Des Ingénieurs Conseils. FIDIC was founded in 1913 by 5 National Associations of Independent Consulting Engineers within Europe.

It was not until the end of the world war in 1945 that the FIDIC began to expand and include among its membership those countries which contained the largest Associations of Consulting Engineers. Today FIDIC membership numbers 53, countries from all parts of the world.

FIDIC is a non-profit association, representing consulting engineers throughout the world and facilitating the achievement of projects by the three principal parties namely client, contractor and consultant.

FIDIC arranges seminars, conferences and other events in furtherance of its goals which are

(i) Maintenance of high ethical and professional standards.

(ii) Exchange of views and information.

(iii) Discussion of problems of mutual concern among member associations and
representatives of the international financing organisations.

(iv) Development of the engineering profession in developing countries.

(v) To act as a central source of information for the member associations. (Campbell, 1986).

During its development it has become apparent that the FIDIC must jealously guard the standard of the service which the members of its constituent member associations can offer, and a substantial contributing factor to this has been its insistence on the maintenance of strict independence so that the counsel and advice given to clients are unaffected by any possibility of gain from other sources.

With the ever-growing interest to aid developing and less developed countries and with the tendency of lands which were formerly not industrialised to see their future supported by industrialisation.

FIDIC has an obviously expanding part to play in the international picture which can be a major contribution to world development and, through that, to peace and prosperity. FIDIC is actively working to encourage the development of the profession in countries which are in the process of development and much of the practical help is being provided by member associations in the industrialised countries.

FIDIC has prepared standard forms for contracts for the construction of civil works and for electrical and mechanical works and these are the best recognised standard conditions available for international contracts. They have done much to establish the working pattern between the client, consulting engineer and contractor which in itself has been of great advantage to each of the parties concerned. (Campbell, 1986).

Those who are already familiar with both the fourth and the fifth editions of the conditions of contract issued by the ICE will be well aware of points of similarity contained in clauses in both of these ICE conditions and FIDIC conditions. They should not, however because of their knowledge of the ICE conditions, assume that the FIDIC is equally applicable in usage—It is
not. FIDIC is a form of contract not necessarily subject to the laws of England, nor in the wording precisely the same as the ICE conditions either in syntax or definition, and because of this the FIDIC contract must be regarded separately in its own right and should be read and fully understood with these points in mind. FIDIC is established through the laws of the land which govern the contract and it is therefore of primary importance that the identification of the law applicable to the contract is made clear, as well as the ruling language where the contract documents are written in more than one language. In FIDIC condition of contract

(i) Principals or parties to the contract; Employer and contractor.
(ii) Supported by; The engineer, his representative and assistants, nominated and other subcontractors and suppliers.
(iii) Others involved; Insurers, providers of geological details etc. designers and specialist engineers.
(iv) By invitation; Arbitrator or Arbitrators.

FIDIC has also developed standard forms of agreement between client and consulting engineer for pre-investment studies, design and supervision and project management services.

4.3 FIDIC conditions of contract

For a project to be achieved successfully the first essential is to have available competent designs, drawings and specifications together with either a bill of quantities or a schedule of rates, to facilitate the computation of the cost of the works. Taken together with these documents, the conditions of contract establish a working relationship within which an employer can expect to receive from an efficient contractor a soundly executed project within a reasonable time and at an economic cost.

To achieve optimum results it is essential that when tenders are invited, the tenderers are not asked to cover in their quoted rates for risks which an experienced contractor could not reasonably be expected to foresee at the time of preparing his tender.
It is in the employers interest for him to assume responsibility under the contract for costs arising from events which may never occur, which lie outside contractors control and which cannot be covered by insurance, or where the cost of insurance is prohibitive. These events may arise from the "excepted risks" and the "special risks".

Competent and experienced contractors are then able to submit competitive tenders without having to include contingency sums to cover unpredictable hazards and the employer will only have to meet the cost of dealing with events which actually occur, arising from special risks.

Close co-operation and team work between employer, contractor and engineer with a mutual desire to produce a satisfactory product by well organised, safe and efficient methods, will reduce to a minimum the risk of delays or misunderstandings. Whatever may be the extent of the engineers delegated duties, he will inevitably consult the employer before taking action which will have a significant effect on the nature of the works, their cost or the time for their completion. It is when mistrust or lack of confidence creeps in that troubles arise and a contract runs into difficulties. No wording in the conditions of contract will prevent this from happening if the team work is faulty and one or more of the parties fails to perform.

The degree to which the employer will allow the engineer to act without first consulting him will depend on the degree of mutual confidence, the technical and managerial capacity of both parties and the extent to which the employer wishes to retain responsibility.

The FIDIC conditions of contract (Wallace, 1974) is intended for works of civil engineering construction which are to be measured and evaluated by bill of quantities. It consists of a single printed document commencing with a short explanatory memorandum, and six separate minutes, all of which are signed on behalf of various sponsoring bodies. It is then followed by 72 general conditions in part I (one of which, the fluctuations clause, is merely an uncompleted heading), and then by a number of similar uncompleted heads for separate agreement by the parties in parts II and III (Part II - Special conditions, Part III - Relating to dredging and reclamation work.). These two latter parts are refered to somewhat misleadingly as "Conditions of Particular
Application", but are in reality only suggested subject on which the parties are required to make their own express agreements. Like the English ICE condition, the document also contains a (Virtually identical) form of tender and appendix, and also a form of agreement. Like the English ICE conditions, the contract contemplates the existence of drawings, and a specification and bill of quantities as additional contract documents.

FIDIC is not suitable, without alteration, for works using a lump sum, fixed price or target cost contract where the basis for payment is not admeasurement nor in their present form for design and build work.

4.4 FIDIC Conditions of Contract (First Edition - August 1957)

Based on the considerations described in 4.3 and applying their knowledge of civil engineering contracts being carried out throughout the world, the FIDIC and the International Federation of Building and Public Works (FIBTP - "Federation Internationale du Batiment et des Travaux Publics") now known as the International European Construction Federation drafted and issued in August 1957, conditions of contract (International) for works of civil engineering construction.

Upto that time there were no conditions (Refer 12) which had been specifically prepared to govern international contracts. The first edition of the FIDIC conditions (The red book as it quickly became known because the title was long and the cover was red) was published at a time when international contracting was in its boom period and the need for a standard set of conditions became apparent. The first edition was based on a form of contract in use in the U.K. which was published by the ICE (Conditions of contract - Fourth edition) and thus very much reflected traditions and a legal system that were specifically British. Subsequently the document, which is the only standard conditions of contract for works of civil engineering construction in use on a worldwide basis, was approved and ratified by the International Federation of Asian and Western Pacific Contractors' Associations (IFAWPCA) in 1969, and by the Associated General Contractors of America (AGCA) and the Inter-American Federation.
of the Construction Industry (FIIC - La Federation Inter-Americana de La Industria de La Construction) in 1971.


There is no difference in the wording of the conditions in the second edition, published in 1969. (Wallace, 1974). The purpose of this edition was merely to record the slight change in the present name of the FIBTP organisation, and the addition of the IFAWPCA as a further sponsoring body, and to include a list of suggested headings for special clauses for dredging and reclamation work. (i.e. The Part III of the contract conditions - This Part III was drafted to provide particular changes to the general conditions when the document was to be used for dredging and land reclamation contracts).

A print of this latter edition in 1973 added minutes of approval and ratification by two new sponsoring bodies - the AGCA and the FIIC. FIDIC conditions of contract (second edition) is firmly based with only minimal alterations on the fourth edition of the ICE conditions of contract. (ICE is based on English Law but the FIDIC is not).


The terms of the third edition of the conditions of contract (International) for works of civil engineering construction which did involve a complete revision, was published in March 1977, prepared by the Fédération Internationale Européenne de la construction (FIEC) and the FIDIC are approved by those organisations, and also by the AGCA, the FIIC and the IFAWPCA, and are recommended by them for general use for the purposes of contracts for the construction of such works where tenders are invited on an international basis. It is further agreed that;
(i) Without the derogating from the provisions of clause 5(1) of the said conditions as to the designation in any contract of any specified language as the "Ruling language" for the purposes of such contract the version in English of the said conditions shall be considered as the official and authentic text thereof for the purposes of translation there of into any other language.

(ii) Official translations from English of the said conditions shall be prepared into French, German and Spanish and into such other languages as FIDIC and FIEC may from time to time jointly agree.

Employers should not be encouraged to meddle with the words of the standard Part I portion of the FIDIC form. Evidence collected in 1973 from 113 projects, carried out under the FIDIC form (Second edition) in 50 different countries indicated that difficulties had arisen where standard clauses had been modified. (Jones, 1979).

FIDIC conditions of contract (Third edition) incorporates some of the changes made in the fifth edition of the ICE conditions of contract published in 1973 but has still retained much of its fourth edition pedigree.

4.7 FIDIC Conditions of Contract (Fourth Edition - September 1987)

In 1983 the executive committee of FIDIC appointed a drafting committee comprised of members of the Civil Engineering Contracts Committee (CECC) which up to that time had been charged with monitoring the use of the third edition. (Refer 12).

The results of the work of the drafting committee, which comprised the members from the following countries such as Denmark, Germany, U.S.A, Sweden and U.K., were approved in 1987 and the fourth edition of the conditions of contract for works of civil engineering construction was published at the annual conference of FIDIC held in Lausanne, Switzerland in 1987.
September 1987. There are many important differences between the third and the fourth edition (Refer 12).

The executive committee decided to drop the word "International" from the title of the document as with slight modification in Part II it is also suitable for domestic contracts. FIDIC also strongly recommends all users of the conditions to insist the Part I of the document should be in the form published by the FIDIC.

Also FIDIC conditions of contract (Third edition) was being criticised by employers (owners) for being too anglo-saxon in its concept and language, presumably the result of a far wider use than it had previously enjoyed. Certain amendments were identified which were being applied almost consistently by employers and it was considered advisable to bring the conditions into line with current practice. Another factor was that in many cases where the conditions are being used for projects in developing countries, the representative of the employer did not have the breadth of authority to delegate duties to the engineer which it had been envisaged that they would have when the third edition was prepared and it was felt desirable to reconcile the conditions with current circumstances.

Considering the above fact the following were taken into account for the preparation of the fourth edition.

(i) Change only where change is necessary.
(ii) Maintain the basic role of the engineer.
(iii) Pay close attention to some specific topics such as bonds and guarantees, apportionment of risk, insurance, claim procedures, certificates and payments and dispute procedures.
(iv) Endeavor to update the language so that it is more understandable to those charged with administering the conditions on site.

There were some procedural differences in the drafting process as compared with the third
In the preparation of the third edition, representatives of the Contractors' Associations had participated almost as co-drafters and it had been indicated on the cover of the conditions that the document was approved by the various contractors throughout the world. For the fourth edition it was agreed that the contractors representatives would have consultative status during the drafting process but the final comment would be the sole responsibility of FIDIC.

European International Contractors (EIC) were mandated by the Confederation of International Contractors' Associations (CICA) to represent CICA in this consultative role and the EIC representative were assisted by two representatives of the AGCA.

In addition, during the course of the revision there was considerably more consultation with the World Bank (WB) than had been the case in previous revisions.

The most notable changes in FIDIC fourth edition from all previous revisions are as follows (Sawyer et al 1990).

(i) Previous revisions (First, Second and Third) did not give the employer many duties but the fourth edition allocates certain matters to him more specifically. Clause 2.1 in Part II lists some of the engineer's duties for which the specific approval of the employer must be obtained before they are carried out. There are 23 occasions when the engineer must consult the employer and the contractor (For extra works and extension of time etc.) and only one occasion when the employer consults the contractor on a matter of settlement. The employer is the more important party to the contract because it is his project and his money which provide employment for the engineer and the contractor.

(ii) The style of the language and the layout of the clauses has been modernised to some degree but the sequence numbering of the clauses has been preserved.
Part II (Conditions of particular application) has been greatly expanded by going from an aide memoire to a fairly comprehensive set of fully developed example clauses.

Part II has been printed as a separate volume. This enables Part I (General conditions) to be attached to the tender documents in their printed form. This provides satisfactory evidence that no changes have been made therein and that whatever changes are require will be affected by an entry in Part II.

The previous Part III (Dredging and reclamation works) has been incorporated into Part II.

Current practice has been reflected in the new edition.

Procedures have been set out in greater detail and in an action oriented way.

The conditions cater for a larger degree of plant.

Greater recognition has been made of the fact that some design of permanent works are, on occasion made the responsibility of the contractor.

4.8 Application of FIDIC Conditions of Contract for Building Construction Works

4.8.1 International Building Construction Works

In most of the countries FIDIC conditions of contract is not used for their building construction works whereas other conditions of contracts are in practice based on their own or modification of some other building contracts. Those are namely conditions of contracts in the U.K. practice, conditions of contract of the American Institute of Architects, modified versions of conditions...
of contracts based on the U.K. or the United States of America, their own standard conditions of contracts etc. Because of these there are no evidence in the application of FIDIC conditions of contract for international building construction works except in the middle east. (Rush Brooke, 1983).

There are number of problems associated with a civil engineering contract in general use for both civil engineering and building construction works. The two operations are markedly different and are described in 4.8.3.

According to Rush Brooke (Rush Brooke, 1983), FIDIC conditions of contract is not appropriate for building construction works in the middle east and a completely redrafted equivalent of FIDIC conditions of contract suitable for building construction work is required to avoid the considerable, present undesirable redrafting of the engineering contract. FIDIC in also not suitable for contracts with a mixture of multi-disciplinary activities involving mechanical and electrical work.

4.8.2 Local Building Construction Works

Adoption of FIDIC conditions of contract for local building construction works in the past and present is not unusual, although it is a civil engineering contract document and the contract is administrated by the engineer.

Very few projects get involved separate consultancy firms and specialised sub-contractors. The use of FIDIC conditions of contract in principal is acceptable among local professionals involved in building construction works and their argument is that it will be difficult to draw a line between civil engineering and building construction works for most of the local building construction works. The use of FIDIC conditions of contract was in practice among most of the private building consultancy organisations (Architectural firms), although some were using their own or modified versions of the U.K. based building conditions of contracts.
4.8.3 Building and Civil Engineering Construction Works

Since the use of separate conditions of contracts and separate contract administrators (Engineers and Architects) for both works, it will be necessary to see the notable characteristics between the two construction works. The following are some of the notable characteristics (Austen et al. 1990) and (Wallace, 1974).

(i) Civil engineering construction works usually incorporate large foundations or earthmoving operations, together with reinforced concrete works on a massive scale (e.g., Dams, harbours, road ways etc.).

(ii) Civil engineering construction works contain little specialist works and some of the temporary works are often designed by the consulting engineer.

(iii) Building construction works consist hopefully of work fully detailed before the work starts and with a great variety of finishes, services and sub-contractors’ work.

(iv) Civil engineering construction works frequently take place over wide areas, perhaps already occupied by the employer or other persons and of which the works may form only a small part, and with no readily recognisable limitations or boundaries, as in the case of most of the building sites.

(v) Civil engineering measurements are based on Civil Engineering Standard Method of Measurement (CESMM), or alternatively the Method of Measurement for Roads and Bridge Works (MMRB) whereas building works are based on SMM.

(vi) The scope of civil engineering work is vast, and encompasses the whole of main endeavour to shape and improve man’s physical environment. Roads, railways, docks, dams, land reclamation, bridges, power stations and pipe lines are all the responsibility of the civil engineer, together with tunnels, sea defences and
sewerage schemes. He will also be called upon to design and carry out the
construction of the foundations and structure of large buildings.

(vii) The design and supervision of civil engineering works are usually carried out by
firms of consulting engineers or by professional civil engineers in the public
service.

(viii) The engineer referred in the civil engineering contract standard form will usually
a civil engineer appointed by the employer to design and supervise the works and
act as the employer's agent.

(ix) The services of architects on civil engineering contracts are generally required for
landscaping and the design of subsidiary buildings.

(x) The civil engineering contract forms do not mention by name the quantity
surveyor, but the engineer can, if he wishes, delegate his duties in regard to
measurement and valuation to a quantity surveyor but not in regard to the final
certificate. Some civil engineers still prepare their own quantities, but with the
increasing complexity of engineering schemes, many civil engineers now employ
the services of the professional quantity surveyor.

(xi) The courts generally imply into building and civil engineering contracts the terms
that the employer will give the contractor possession of the site within a
reasonable time, that the employer will appoint an engineer or architect, that the
employer will not prevent the contractor from completing the works, and the
contractor will do the work in a good and workmanlike manner. In the standard
forms of civil engineering contract all these matters are the subject of express
terms.

(xii) In a building project, the client may be an individual or government, whereas in
a civil engineering project, the client is mostly government.

(xiii) Buildings are construction works in which people will work or dwell.

(xiv) Civil engineering works are more concerned with controlling the natural environment to provide what is sometimes called the "infrastructure" for example, roads, dams and airports.

(xv) Because civil engineering work is concerned with changing the natural environment, it is highly susceptible to the unpredictable forces of nature, whereas building works are not susceptible. For example, the building of a dam may be seriously disrupted by a sudden storm causing a flash flood. But once the foundation of a building is complete, the elements cause minor interference to the erection of the superstructure. Civil engineering works thus require a more flexible approach as well as an increased contingency allowance for unexpected costs.

Most civil engineering schemes are large, extensive and expensive, obvious examples being road and irrigation developments. These characteristics often require a high rate of expenditure during the construction stage and a high level of managerial expertise. This may in turn require a high level of investment by the contractor. In developing countries these characteristics have resulted in much civil engineering work being funded by the international developing agencies, designed by international consultants, and constructed by major international contractors using plant-intensive methods.

(xvi) Building contracts are mostly supervised by architects, it is the structural engineer who will assist as consultant responsible for the design and inspection of the foundation and structure. There will be other consultants for service installations, lifts etc.
Quantity surveyors either in private practice or in the public service, are almost invariably employed on building contacts. Their duties extend from preparing preliminary estimates from the sketch design to the preparation of the final account, and will include, among other services, the preparation of the bill of quantities, and valuations for interim certificates. The quantity surveyor receives official recognition and his duties are partially defined in the building contract forms such as JCT conditions of contract etc.