



# Understanding Construction Contracts

An Online Continuing Education Course for Engineers

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## I. INTRODUCTION

Contracts have been in existence since the Roman days. Contracts are part of everybody's daily life. Riding on a subway, buying a loaf of bread or a ticket to a movie and even buying a new car are examples of a contract. Contracts in the most rudimentary form appear to be fundamental for civilized existence.

All construction work is done within a contract unless it is done by a person for himself. Every time a contractor makes an offer to do any kind of construction work and the owner accepts such an offer, a contract is made.

Usually, construction contracts are made without the aid of a lawyer. However, large and complex construction projects require the expertise of a lawyer.

Contracts usually need not be in writing to be valid, but they need to be in writing to be enforceable. Oral contracts usually are legal and valid, but they cannot be enforced. If the law requires the contract must be in writing, and if it is in writing, the contract has validity. On the other hand, if the law requires it must be in writing and if it is not, the contract has no validity. If the contract is not in writing and the law does not require it to be in writing, it may be a valid contract but not enforceable.

An important aspect of written contract is the *parole evidence rule* that excludes all prior verbal and written agreements between parties.

Construction is classified as follows:

1. Building construction (building for shelter and enclosures of all kinds)
2. Engineering construction (dams, bridges, highways, canals, etc.)
3. Industrial construction (manufacturing, and processing plants, etc.)

Building construction comprises of Residential, Commercial and Institutional. It is also classified as light construction and heavy construction. Any building having three stories or less is classified as light construction.

## **I.1. Primary ingredients of construction contracts**

### **I.1.1. Mutual agreement and genuine intention**

It is the fundamental and readily-understood ingredient. It is the mutual consent of the parties involved in the contract. Offer and acceptance are essential. Contract, by definition, is a promise enforceable by law and there must be genuine intention on the part of the parties to take on the obligations agreed in the contract. Meeting of minds or a consensus is required of all parties involved. Offer and acceptance must be identical in substance as they are the natural expressions of mutual agreement.

### **I.1.2. Capacity to contract**

This refers to the competency of a person who can make a valid and enforceable contract. A person who is under-age, insane, alcoholic, legally restrained and restricted by the nature of his occupation does not have the capacity to make a contract.

### **I.1.3. Consideration in a contract**

This is something of value given by one party to the other in exchange of something else. In contract law, consideration can be anything of value. The value given by the contractor to the owner is the construction of the project and the value of the owner given to the contractor is the stipulated sum of money for building the project.

### **I.1.4. Object of the contract**

The object must be lawful as the law will not enforce a contract for an illicit purpose. Increasing the seating capacity of a room beyond its legal limit is an example of illicit purpose.

## **I.2. Participants in construction work**

### **I.2.1 Owner**

He is the first participant in construction work. He owns the land where the building is constructed and, eventually, owns the building after its construction. He is the employer of the contractor and other personnel required for the construction work. An owner can be classified as an individual, a corporation or a government.

### **I.2.2. Designer**

He is the owner's agent and is employed by the owner to design the work, to arrange for the construction contract, and to inspect the work during its construction for its conformity with the

contract. He is a technical person. He can be an architect or an engineer depending upon the nature of construction. If the emphasis of the building is aesthetics, more likely the architect will be the designer. On the other hand, if the emphasis is on the structural stability, an engineer will be the designer. An architect and an engineer will be working together in big construction work. The designer's fee for his work will be in one of the following methods: (a) a percentage of construction cost; (b) a fixed fee; (c) a fixed fee plus expenses, and (d) a multiple of direct expenses. The designer's services are grouped in the following five phases: (a) schematic design; (b) design development; (c) construction documents; (d) bidding; and (e) construction.

### **I.2.3. Designer's consultants**

These are specialists in many fields of design who are hired to provide the special services to the designer. Some examples of the special services are: soils, structures, mechanical, electrical, acoustics etc.

### **I.2.4. Construction manager**

He is a consultant and agent of the owner engaged in advising and managing the construction work. He also often provides site services and advices on design, construction methods, and costs. Usually, he is not responsible for the work's performance.

### **I.2.5. Contractor**

He is the person who enters into a contract with the owner to construct the work for a payment. He is also called a general contractor, a primary contractor, a principal contractor, or a main contractor.

### **I.2.6. Management contractor**

He is employed by the owner to manage the project work which is performed by several contractors and subcontractors. He is responsible for their performance

### **I.2.7. Sub-Contractor**

He is hired by the general contractor to do certain special type of work which the general contractor does not have the expertise to do. Some examples of special work include site work, form work, reinforcing, masonry, metal work etc.

### **I.2.8. Sub-subcontractor**

He is employed by a subcontractor to do parts of the construction work, on his behalf, when the subcontractor lacks expertise in that part. An example of a Sub subcontractor is the one who does the duct work in a mechanical subcontract.

### **I.2.9. Supplier**

He is the person supplying materials required for construction. He is in fact a vendor. Some examples of material supply are: sand, brick, concrete etc. If a construction item is manufactured conforming to a design at a remote location and shipped to the construction site for installation by others, the manufacturer of such an item becomes a sub-contractor even though he is not installing his supplied item. Examples of such manufactured to a design are a roof truss, custom made window frame etc.

### **I.2.10. Quantity surveyor**

He is an agent of the owner and works with the designer and deals with the financial and budgetary aspects of a construction project both during design and construction. He is also called cost engineer or cost consultant.

### **I.2.11. Project manager**

He is employed by an owner, specially by a corporate or government owner to act as his representative in a project and to do things that the owner would otherwise has to do, including hiring the designer, construction manager, quantity surveyor, and other agents and employees, making payment for services and work, and taking decisions about project-related things.

## **II. TYPES OF CONSTRUCTION CONTRACTS**

### **II.1. Stipulated–sum contract**

It is also called lump sum contract or fixed price contract and is the most common construction contract in the United States. The concept of this contract is to pay a fixed sum for a complete job of work. The contractor is required to provide and do everything necessary to complete the work for the general purpose for which it is designed and intended. Items that are indispensably necessary to complete the whole work, and are reasonably inferable, are included. The design must be practically complete and settled before bids are sought. The best kinds of work to be done under this contract are those of straight forward design and standard construction such as residential and commercial construction. Changes cannot be made by the owner without the mutual agreement of the contractor.

The contractor has complete control of the work and is free to employ any means to do the work. A contractor is required to employ a full-time superintendent. The contractor indemnifies the owner and his employees from all claims, damages, losses and expenses arising out of the performance of the work. It is the contractor's right to get paid according to the terms and conditions of the contract. If a payment is delayed for more than 30 days, the contractor, after giving written notice, can terminate the contract and seek payment for work already done and damages sustained. Payments are usually made once a month.

The owner's primary duties are to furnish all the information about the project and afford access to the site and to pay the contractor according to the terms and conditions of the contract. Everything else is done by the designer on the owner's behalf. The owner generally issues instructions to the contractor through the designer. The owner is required to provide all site surveys, pay for all easements and show evidence of suitable financial arrangements to fulfill his obligations. The owner has the right to stop the work if the contractor fails to correct the defective work. To rectify the defective work, the owner may require from the contractor a performance bond furnished by a surety company. The owner has the right to terminate the contract for causes such as the contractor's bankruptcy, his persistent refusal to get on with the work, his failure to pay subcontractors or suppliers, his persistent disregard of laws and regulations and his substantial violation of a term or condition of the contract. In the agreement for lump sum contracts, there is a provision for collecting liquidated damages related to failure to complete the contract on time.

The designer (an architect or an engineer) is not a signatory to the lump sum contract and therefore has no obligations. Nevertheless, he is given specific duties. He is the owner's representative and acts as an arbiter in case of disputes between the owner and the contractor and thus he is considered as a quasi-adjudicator. But the designer's decisions are rarely final and binding on the parties who can then go for arbitration. The designer may make minor changes in the work which affect neither the contract sum nor the contract time and which are consistent with the intent of the contract documents. Another important duty of the designer is the certification of substantial completion of the work and the related issuance of final certificate of payment. The designer makes periodic visits to the site when the construction work is in progress to make sure the work is performed as required in the contract documents. The designer may keep at the site a full-time representative to assist him in his duties, in which case the precise duties and responsibilities of the representative must be set out in the contract documents.

A subcontractor is not a party to a contract between the owner and a contractor in a primary contract. There is no *privity* between him and the owner. Instead, he is a party to a subcontract with a contractor and such a subcontract could be for a lump sum. He has *privity* with the contractor. Usually, a contractor is required to provide the owner with a list of all subcontractors he proposes to employ on the work. This list may be provided either at the time of submitting the bid or soon after the contract is awarded. The owner cannot force a contractor to have contract with a subcontractor and at the same time the owner has the right to approve of all subcontractors. A subcontractor has to perform his work

according to the requirements of the primary contract. All subcontracts must be in writing and the subcontract documents should reflect the primary contract both in form and in content to the extent required by the work of the subcontract. A subcontractor's obligations are a reflection and extension of the contractor's obligation in the primary contract.

Like a subcontractor, a supplier has no *privity* between him and the owner. He has *privity* with the primary contractor. A supplier may be classified as a subcontractor if he is performing as already mentioned in Section III.

The primary advantage to the owner is that he can select a bid that is within his budget. An owner has greater control of expenditure and, in order to achieve this, he must provide the bidders with adequate design information. The details of the design must be complete before calling for bids. Because of this there is a delay in the start of the project until the contract is made and the contractor is precluded from using his experience and ability to make creative contributions to construction work already designed which is a loss to the owner. The contractor is paid to carry the greater burden of risk.

## II.2. Cost-plus-fee contract

This is also called Reimbursement contract. The owner pays the contractor all the costs of the work plus a fee for the contractor's profit. The owner takes the greater portion of the risk. The contractor does the work for a contract sum which is economical. The contractor gets into a cost plus fee contract.

It is necessary to understand the nature of the units of construction work used in estimating costs. Basic items are the smallest parts of construction work to which costs can be attributed by estimating. An example for unit work is 'brick wall built in place' and not individual bricks.

Work includes all labor, materials, equipment and services provided by the contractor. Costs of work are classified as direct costs or reimbursable costs and indirect costs or non-reimbursable costs. Direct costs include the following:

- (1) Labor cost
- (2) Material cost
- (3) Tools, plant and equipment cost and
- (4) Job overhead cost. These costs are readily identified and related to a specific site and project. Labor costs are direct costs of wages, statutory payments, benefits and costs for such things as traveling,

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