



PDHonline Course P120 (2 PDH)

Construction Contract Basics

Instructor: Kevin D. Waddell, P.E.

2020

PDH Online | PDH Center

5272 Meadow Estates Drive
Fairfax, VA 22030-6658
Phone: 703-988-0088
www.PDHonline.com

An Approved Continuing Education Provider

Construction Contract Basics

Course Content

Definition of Contract Documents

Typically, the phrase Contract Documents is used to describe the entire scope of a construction contract. In fact, the Contract Documents form the Contract and are the sole declaration of agreement between the parties involved.

Contract Documents normally consist of the following: 1) Agreement, 2) General Conditions, 3) Supplementary Conditions, 4) Technical Specifications, 5) Drawings, 6) Addenda, 7) Bonds, 8) Insurance, 9) Contractor's Bid or Proposal, 10) Notice of Award, and 11) Notice to Proceed. In some cases supplements such as the invitation to bid, instructions to bidders, shop drawings, written interpretations, or clarifications are part of the Contract Documents.

Once all parties have executed the Contract Documents, the only way to amend them is by issuing a Change Order or Work Change Directive. Extreme caution should be utilized when issuing or accepting verbal agreements or modifications without recording the information in the form of a written document that is properly executed.

Agreement

The agreement is the main document used to signify and formalize the construction contract between the Owner and Contractor. A good agreement is divided into sections called Articles and are numbered consecutively. The Articles define the terms of the Agreement and establish the contractual obligations for each party. Standard Articles define the Work, the Engineer/Architect, Contract Time, Monetary damages for delayed work completion, Contractor's price as defined in the bid, Payment Procedures, and the Contract Documents.

General Conditions

The legal aspects of the Contract Documents are outlined in the General Conditions (GC's). There are several types of General Conditions available for inclusion in Contract Documents. Two standardized (common) sets of GC' are those prepared by the Engineers' Joint Contract Documents Committee (EJCDC) and the American Institute of Architects (AIA) {see inset}. The perception among these two types of GC's is that the EJCDC documents are used for heavy construction / engineering projects and the AIA documents are used by Architects and general contractors for commercial, residential and other types of building projects. A comparison should be made by the end-user to determine which GC's are best suited for the project and type of work involved. For this discussion, the EJCDC documents will be referenced when necessary.

The General Conditions are the legal standards that have been established to promote fair and objective contractual stipulations between all parties involved in construction projects. A primary benefit of using *standardized* GC's is that the document has been prepared with the advice of legal counsel and experienced professionals. The Articles contained in the General Conditions describe the legal rights, responsibilities and contractual requirements of the Owner, Contractor, and Engineer. Technical information pertaining to how the project is to be constructed is not part of the GC's (see Technical Specifications). It is important to remember that the General Conditions listed herein have been prepared with input from legal counsel. Adapting these standards for a particular project or specific Owner is often encouraged. However, GC's and other types of standardized text used for Contract Documents should only be modified with the help of legal counsel.

Supplementary Conditions

Whenever a modification to the GC's is desired, the Supplementary Conditions can be utilized. Generally, the GC's should not be amended within itself. The Supplementary Conditions is the part of the Contract Documents where an Engineer or Owner can amend, modify, or *supplement* the Articles of the standardized GC's. For example, a particular project may necessitate additional insurance or bonding requirements other than those set forth in the GC's. The Owner or Engineer may state these requirements in the Supplemental Conditions.

Technical Specifications

The Technical Specification (Detailed Specification or Spec) is information developed by the Engineer or Architect of the project. The information is provided to give the Contractor guidelines to follow during construction in conjunction with the project design. The various Specs outline to the Contractor the type of material, pertinent material data, and performance requirements of the material placed in construction. The Engineer may also stipulate construction sequencing depending upon the needs of the Owner or as required by existing conditions affecting the project. The Technical Specs do not dictate to the Contractor *how* to install the material; only what to install and the expected result after construction.

The Construction Specifications Institute (CSI) was organized in 1948 to bring uniformity and standardization to the construction industry during the post-War construction boom. Today, CSI is the foremost organization involved in reviewing and writing standard specifications that can be used for virtually any type of non-residential construction project. The uniform format of CSI based technical specifications allows the user to search and find key information in any given spec. CSI termed its organized approach to specification writing and development MasterFormat™. An important aspect to CSI specs is that the basic format is provided to the end-user. The basic format can even be customized if so desired. The technical information or data in each

specification should be developed by the professional responsible for the design of the project.

CSI specs are divided in sixteen distinct and unique sections called Divisions. These Divisions are the basis for organizing specs by similarities in the various technical aspects found in a construction project. The following is a list of the current CSI Divisions commonly utilized in Technical Specs.

- Division 00 – Procurement and Contracting Requirements
- Division 01 – General Requirements
- Division 02 – Sitework
- Division 03 – Concrete
- Division 04 – Masonry
- Division 05 – Metals
- Division 06 – Wood, Plastics, and Composites
- Division 07 – Thermal and Moisture Protection
- Division 08 – Doors and Windows
- Division 09 – Finishes
- Division 10 – Specialties
- Division 11 – Equipment
- Division 12 – Furnishings
- Division 13 – Special Construction
- Division 14 – Conveying Systems
- Division 15 – Mechanical
- Division 16 – Electrical

Within each Division, individual specifications are termed sections and given a five digit reference number. For example, in Division 3, Concrete Formwork is labeled Section 03100 or in Division 15 Miscellaneous Valves may be 15100.

Within each spec section three subsections are utilized to facilitate the organization of the material: Part 1 (or A) – General, Part 2 (or B) – Products, Part 3(or C) – Execution. These are common to all CSI spec sections. Each Part is further detailed by Paragraphs where each major item is numbered with the Part number first followed by its numerical order of its location in the spec just like a typical outline. For example Section 03100, Part A- General, paragraphs 1-1 Scope, 1-2 General, 1-3 Submittals and so on as necessary. The process of further organizing the spec can continue at the writer's discretion.

Although the CSI system is commonly used for engineering and construction projects, it is not the only means of developing Technical Specifications. Government organizations including the Corps of Engineers and states' Department of Transportation have developed their own set of Technical Specifications. Usually, copies of these specs can be obtained by contacting the agency's local office.

CSI recently drafted a proposal detailing an expansion to the current sixteen divisions of MasterFormat™. For more information about the proposed division expansion, CSI and its resources, or becoming a member of CSI visit its website.

Drawings (Design Plans)

The technical drawings created by the design professional constitute the basis for the construction of the project. The drawings are inherently part of the Contract Documents but should be specifically stated as such in the Agreement.

Addenda

An addendum is a formal written document issued to modify, add or delete any part of the Contract Documents prior to submission of the bids. Once issued, an addendum becomes part of the Contract Documents and supercedes the information that it modifies, adds, or deletes.

Addenda are important documents and will often facilitate adjustment to a Contractor's bid. For this reason diligence should be used to ensure that all Contractors providing bids for a given project receive addenda and acknowledge receipt thereof either in the bid or prior to submission of bids.

Bonds

Bonds include bid, performance, payment (statutory), maintenance and other instruments of security. Bonds are provided by a surety company and are the legal documents that *guarantee* to an Owner that the project will be completed, is constructed properly, and all labor, materials and equipment will be paid for in the event the Contractor defaults on the original contract. The surety (bonding) company is the entity responsible for fulfilling the Contract in the event the original Contractor defaults for any reason.

Bid Bond – submitted with the bid by the Contractor. It is security to the Owner that the successful bidder will enter into an agreement for the work and not withdraw or nullify its bid after submission. Typical bid bonds are for 5% of the amount of the Contractor's proposal. In the event a Contractor desires to withdraw or nullify its bid, the Owner has the right to enforce its receipt of 5% of the bid price.

Performance Bond – included with signed Contract Documents. This bond guarantees the Owner that the project will be completed for the contract price in the event the original Contractor fails to perform the work.

Payment (or Statutory) Bond – included with signed Contract Documents. This bond guarantees the Owner that all labor, equipment, and materials will be completely paid for in the event the original Contractor fails to perform the work

Maintenance Bond - included with signed Contract Documents. This bond guarantees the Owner that any defects found after the work has been completed will be corrected by the original Contractor or other agent of the surety company. The maintenance bond is effective for a predetermined amount of time past the date when the work is satisfactorily complete. Typical maintenance periods range from one to three years. The bond amount is also predetermined and typically ranges from 50% to 100% of the original Contract value.

Blank or sample bond forms are provided with the Contract Documents prior to the bid. The forms, General Conditions, or Supplementary Conditions can be used to describe the specific requirements for each type of bond. There are various types of bond forms prevalent throughout the engineering and construction industry. It is important for all parties involved to understand the bond forms utilized for each project or Owner and the implications should the Surety be called upon to honor its guarantee.

Insurance

Any good set of Contract Documents should include clauses requiring the Contractor, and in some cases the Owner, to carry insurance to protect the public, property affected by or adjacent to the work, and financial interests of the parties involved in the project. These clauses are usually located in the General Conditions and amended as necessary in the Supplementary Conditions.

The types of coverage and policy amounts can differ by project or Owner. Design consultants, Owners, and Contractors should have their insurance agent or a legal professional review the insurance clauses in the Contract Documents for adequacy, appropriateness, and costliness on a project by project basis. For a better understanding of insurance clauses and the differing types of insurance requirements read Article 5 in the EJCDC General Conditions.

Contractor's Bid (Proposal)

A bid is the price proposed by a Contractor to complete the work described in a set of Contract Documents. The bid becomes dollar amount of the Agreement between an Owner and Contractor. The value of the Contract can only be modified by a change order as agreed to by all parties.

Bids are submitted in two formats: lump sum and unit price. A lump sum is comprised of a one total price to complete all of the work. After a lump sum bid has been accepted, the Contractor will summarize the major items of work and the associated dollar values in a 'Schedule of Values' and provide them to the Owner. This is customary so that accurate payments can be made based on the percentage of work done for each major item of work. Unit price bids are based on predetermined major items of work, the items' quantities, and the Contractor's price per unit multiplied by the total quantity to create the total cost for each major item of work.

There are pros and cons to both types of bid proposals. A lump sum bid is based on the Contractor's interpretation of the major items of work and the quantity or scope of each item. If the Contractor's measurement of the quantity of work for a particular item is inaccurate the bid price may be too high or too low. The Contractor will only be paid the lump sum dollar amount. A unit price bid proposal is based on the designer's interpretation of the major items of work and the quantity of each item. The Contractor is paid based on the actual quantity constructed of each major item of work. A lesser unit price quantity is not favorable to a Contractor, but is also usually not detrimental to its success on the project.

Notice of Award

The Notice of Award is the written notice by the Owner to the apparent successful bidder stating that upon compliance by the bidder with the conditions presented in the notice the Owner will sign the Agreement. The notice can be as simple as a letter drafted by an authorized representative of the Owner or a formal standardized document created for the stated purpose. See Appendix for an example of a Notice of Award.

Notice to Proceed

The Notice to Proceed is a written notice from the Owner to the Contractor that establishes the date on which the Contractor shall begin performing its duties and obligations as outlined in the Contract Documents. This notice can also be as simple as a letter drafted by an authorized representative of the Owner or a formal standardized document created for the stated purpose. See Appendix for an example of a Notice of Proceed.

Supplemental Documents

Some Owners and Engineers prefer to reference in the Agreement the Invitation to Bid, the Instructions to Bidders, shop drawings and other written interpretations or clarifications such as minutes to prebid meetings as part of the Contract Documents.

The Invitation to Bid is a legal notice alerting the public and all interested parties of an Owner's intent to receive bids for predetermined goods or services at a specific time and location as outlined in the notice. The Invitation to Bid is placed in a local newspaper where prospective bidders can find and read it. Owners and Engineers also may send the notice directly to bidders that have bid on previous projects for them.

The Instructions to Bidders (ITB) is an important written matter as it describes to the prospective bidders how to formally submit the bid to the Owner. The ITB usually identifies any prebid meetings that are scheduled, how the Contract will be awarded, and whether or not the project is exempt from sales tax or other state and local taxes. The ITB is most commonly placed at the front of the bound project specifications and documents book directly after the Invitation to Bid.

Conclusion

Becoming a successful Engineer or Architect does not correlate with an ability to apply equations or remember textbook problems. All the work that is afforded design projects of any type is simply a means to an end. That end is the realization of a designer's vision through the construction of the project. Design professionals must learn to describe the legal and technical aspects of a project with Contract Documents. More importantly, the designer must strive to understand the effects of the written documents and what role those documents have in any given construction project. Take time to read through various types of Contract Documents and ask legal counsel or a seasoned design professional for interpretations or opinions. Once you understand the role and importance of Contract Documents the better you will become at preparing them.

APPENDIX

Sample Technical Specification Table of Contents

Sample Notice of Award

Sample Notice to Proceed

TABLE OF CONTENTS (sample)

<u>Subject</u>	<u>Pages</u>
DIVISION 2 - SITEWORK	
02202 Trenching and Backfilling	1:14
02372 Drilled Piers	1:6
02612 Prestressed Concrete Cylinder Pipe	1:18
02612-SO-1 Prestressed Concrete Cylinder Pipe Schedule	1
02930 Seeding	1:8
02940 Tree and Shrub Protection and Removal	1:3
DIVISION 3 - CONCRETE	
03100 Concrete Formwork	1:4
03200 Concrete Reinforcement	1:3
03250 Concrete Joints and Accessories	1:3
03300 Cast-In-Place Concrete	1:25
03350 Concrete Placing, Finishing and Curing	1:13
03600 Grout	1:2
03610 Equipment Grout	1:2
DIVISION 5 - METALS	
05550 Anchorage in Concrete	1:4
DIVISION 7 - THERMAL AND MOISTURE PROTECTION	
07160 Bituminous Damproofing	1:2
DIVISION 8 - DOORS AND WINDOWS - Not Used	

NOTICE OF AWARD

TO: _____

Project:

Description:

The owner has considered the bid submitted by you for the above described work in response to its advertisement for bids dated _____, 20___, and information for bidders.

You are hereby notified that your bid has been accepted for items in the amount of \$_____

You are required by the information for bidders to execute the agreement and furnish the required contractor's performance bond and affidavits or copies of insurance coverage within ten calendar days from the date of receipt of this notice to you.

If you fail to execute said agreement and to furnish said bond and affidavits within ten days from the date of receipt of this notice, said owner will be entitled to consider all your rights arising out of the owner's acceptance of your bid as abandoned and as a forfeiture of your bid bond. The owner will be entitled to such other rights as may be granted by law.

You are required to return an acknowledged copy of this notice of award to the owner. Dated this ____day of _____, 20__.

City of _____ (Owner)

By _____ Title

ACCEPTANCE OF NOTICE: Receipt of the above Notice of Award is hereby acknowledged.

By _____ this the ___day of _____, 20__.

By _____ Title

Notice of Award

NOTICE TO PROCEED

TO: _____ Date: _____

Project Name:

You are hereby notified to commence work in accordance with the Agreement dated _____, 20__,
on or before _____, 20__, and you are to complete the work within _____
Calendar/Working days thereafter. The date of completion of all work is therefore _____, 20__.

Owner

By: _____

Title: _____

ACCEPTANCE OF NOTICE

Receipt of the above Notice to Proceed is hereby
acknowledged by _____,

This ___ day of _____, 20__.

By: _____

Title: _____

Notice to Proceed