CONSTRUCTION CONTRACTING

TEXT REFERENCE

FEDERAL ACQUISITION INSTITUTE

CURRICULUM OF PROCUREMENT
TRAINING COURSES

CURRENT THROUGH
FAC 90-20

OFFICE OF ACQUISITION POLICY

GENERAL SERVICES ADMINISTRATION

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INTRODUCTION

THE FEDERAL ACQUISITION INSTITUTE (FAI) CURRICULUM

Courses

In FY91, the FAI began providing acquisition trainers and educators with instructional materials for a new Contract Management curriculum. This curriculum includes the following courses, listed in a recommended order of attendance.

1. Introduction to Contracting*
2. Procurement Planning*
3. Small Purchases
4. Contracting By Sealed Bidding*
5. Price Analysis*
6. Contracting By Negotiation*
7. Cost Analysis*
8. Contract Negotiation Techniques**
9. Contract Administration*
10. Contract Law
11. Types of Contracts
12. Source Selection*
13. Advanced Negotiation Procedures**
14. Advanced Cost and Price Analysis**
15. Advanced Contract Administration**
16. Termination/Claims

Specialized Courses
(in alphabetical order)

1. Acquisition of FIP Resources**
2. Contracting for Architect/Engineer Services*
3. Construction Contracting*
4. Managing the Contracting Activity

Offerors

Each of the above courses will be offered by the GSA Interagency Training Center. Other Federal acquisition trainers and educators may incorporate FAI instructional materials in their respective curricula (perhaps under different course titles than the above).

* Currently available (as of 5-94)
** Projected to be available in FY1995

PURPOSE OF THE FAI CURRICULUM

Help you accomplish the goals of the Federal Acquisition Process

As a Contract Specialist, your primary goals are to:

1. Obtain the optimum market response to requirements for supplies and services, in terms of:
   - Quality.
   - Timeliness.
   - Price.

   While -
   - Accomplishing socioeconomic objectives.
   - Minimizing business and technical risks.
   - Maximizing competition.
   - Maintaining integrity.

2. Assure that purchased supplies and services are:
   - Delivered or performed when and where specified in the contract.
   - Acceptable, in terms of conforming to the contract's specifications or statement of work.
   - Promptly and properly reimbursed.
   - Furnished in compliance with other terms and conditions of the contract.

Help you perform your duties

To accomplish these goals, Contract Specialists perform more than 78 principal duties. Collectively, these duties constitute the Federal acquisition process. Exhibit I-1 maps the acquisition process and relates each duty to the overall process. The FAI curricula has been designed to systematically develop your skill at every duty in Exhibit I-1, in the context of accomplishing the overall goals of the Federal Acquisition Process.

Your challenge

Your challenge is to become proficient at the duties in Exhibit I-1. Granted, you may presently perform only a subset of the duties. In terms of your career, however, learning the entire range of duties will improve your competitiveness for a great variety of contracting positions, including managerial positions. From the standpoint of the Government, you will be better able to perform any one duty if you have first hand knowledge of how the duty affects, and is in turn affected by, the performance of the other duties.

CHARACTERISTICS OF THE FAI CURRICULUM COURSES

- Each course covers specific duties and is designed to provide skill in performing those duties.
- Each course in the curriculum will build on the skills and knowledge taught in prior courses.
- Generally, there is a separate lesson for each duty, with a corresponding chapter in the Text/Reference.
- In most cases, the instructor will introduce the duty, its purpose (learning objective), applicable policies, and standards for performance.
- Next, the instructor will walk you through a flowchart of the steps in performing the duty.
- You will perform selected steps in-class, using case studies and other such exercises.
- You will be tested.
- For each duty, the Text/Reference will serve as a desk reference, with flowcharts, steps in performance, and job aids.
- Practicums (i.e., self-instructional exercises) will be available at a later date to reinforce the in-class learning back on-the-job.
- Specialized courses will not reteach the basic acquisition process but will rather concentrate on the unique regulations and procedures for procuring FIP Resources, A&E Services, or Construction.

PRESOLICITATION PHASE

Determination of Need	Initiating the Procurement	Analysis of Requirement	Sourcing
Determining Needs 1. Forecasting Requirements 2. Acquisition Planning	**Processing the PR** 3. Purchase Requests 4. Funding **Market Research** 5. Market Research	**Analyzing Requirements** 6. Specifications 7. Statements of Work 8. Services	**Extent of Competition** 9. Sources 10. Set-Asides 11. 8(a) Procurements 12. Competition Requirements 13. Unsolicited Proposals **Selection Factors** 14. Lease vs. Purchase 15. Price Related Factors 16. Technical Evaluation Factors **Method and Plan for the Procurement** 17. Method of Procurement 18. Procurement Planning

SOLICITATION-AWARD PHASE

Solicitation	Evaluation— Sealed Bidding	Evaluation— Negotiation	Award
Terms and Conditions 19. Contract Types 20. Letter Contracts 21. Contract Financing 22. Use of Government Property and Supply Sources 23. Need For Bonds 24. Solicitation Preparation **Soliciting Offers** 25. Publicizing Proposed Procurements 26. Preaward Inquiries 27. Prebid/Preproposal Conferences 28. Amending Solicitations 29. Cancelling Solicitations	**Bid Evaluation** 30. Processing Bids 31. Bid Acceptance Periods 32. Late Offers 33. Bid Prices 34. Responsiveness	**Proposal Evaluation** 35. Processing Proposals 36. Technical Evaluation 37. Price Objectives 38. Cost and Pricing Data 39. Audits 40. Cost Analysis 41. Evaluating Other Terms and Conditions 42. Competitive Range **Discussions** 43. Factfinding 44. Negotiation Strategy 45. Conducting Negotiations	**Selection for Award** 46. Mistakes in Offers 47. Responsibility 48. Subcontracting Requirements 49. Preparing Awards **Executing Awards** 50. Award 51. Debriefing **Protests** 52. Protests **Fraud and Exclusion** 53. Fraud and Exclusion

Exhibit I-1. Federal Acquisition Process Chart.

POST-AWARD ADMINISTRATION PHASE

Start-Up	Quality Assurance	Payment and Accounting	Closeout
Planning 54. Contract Administration Planning 55. Post-Award Orientations **Ordering** 56. Ordering Against Contracts and Agreements **Subcontracting** 57. Consent to Subcontracts	**Monitoring and Problem Solving** 58. Monitoring, Inspection, and Acceptance 59. Delays 60. Stop Work 61. Remedies **Property** 62. Property Administration **Reporting Performance Problems** 63. Reporting Performance Problems	**Payment** 64. Limitation of Costs 65. Payment 66. Unallowable Costs 67. Assignment of Claims 68. Collecting Contractor Debts 69. Progress Payments 70. Price and Fee Adjustments **Accounting** 71. Accounting and Cost Estimating Systems 72. Cost Accounting Standards 73. Defective Pricing	**Closeout** 74. Closeout

POST-AWARD ADMINISTRATION PHASE (Con't)

Contract Modification	Termination	Claims	
Modifications/Options 75. Contract Modifications	**Termination** 76. Termination 77. Bonds	**Claims** 78. Claims	

Exhibit I-1. Federal Acquisition Process Chart (continued)

OVERVIEW OF CONSTRUCTION CONTRACTING

Duties

The following duties are covered in this course:

- A/E Design Review
- Set-Asides
- Presolicitation Conferences
- Davis-Bacon Wage Rates
- Subcontracting Plan
- Processing Offers
- Bonds
- Contract Administration Planning
- Preconstruction Conference
- Inspection
- Government Furnished Property
- Progress Payments
- Delays
- Change Orders
- Remedies

This edition of the Construction Contracting Text/Reference is current through FAC 90-20.

Length

Two weeks (10 days)

Daily Hours

8:00 to 4:30. The time from 3:30 to 4:30 is reserved for reading assignments and/or one on one questions with the instructor. You may leave at 3:30 if necessary, but you are expected to complete all reading assignments.

Who Should Attend

Contract Specialists (GS-9 to GS-11) who have successfully completed:

- Introduction to Contracting,
- Procurement Planning,
- Contracting by Sealed Bidding,
- Contracting by Negotiations,
- Cost Analysis, and
- Contract Administration.

Differences

How is the construction contracting process different from routine Government contracting procedures?

1. Some variances can be attributed to a difference in **physical environment**. The supply contractor performs independently, in its own facility, following in-house policies and procedures of its own choosing; whereas, the Government construction contractor performs on Government controlled property, which creates a more restrictive environment where more controls are exercised over the workforce. This situation creates a whole new set of rules, guidelines, procedures, and surveillance requirements which are specified in special clauses and provisions.

2. Other differences arise from the **Davis-Bacon and Miller Acts**, both of which are unique to construction. They specify wage rates and bonding requirements which call for stringent compliance with labor laws.

3. There are generally a **larger number of modifications** issued under a construction contract.

4. **Liquidated damages** (an assessment against the contractor's failure to accomplish specific tasks) are often used as a remedy in lieu of termination actions.

5. The Government also reserves the right to **complete a terminated contract with its own forces** if it chooses.

6. Extensive use is made of the **changes** clause.

This course will focus on the differences in Construction Contracting and <u>will not teach you</u> the basics of Procurement Planning, Sealed Bidding, Negotiations, or Contract Administration.

USING THE TEXT / REFERENCE IN THE CLASSROOM

Performance-Oriented

This Text/Reference and the related classroom materials are performance-oriented. The Text/Reference provides a step by step guide to performing the duties. In the classroom, you will have opportunities to practice performance of the duties - using the Text/Reference as your guide - through the use of such instructional techniques as interactive viewgraphs and case studies.

Interactive Viewgraphs

An interactive viewgraph is a slide on the overhead projector that requires a response from the class. For example, if the instructor is showing a decision table with the "if" side filled in, the "then" side would be empty and you would help fill out the answers. Or perhaps the slide asks a particular question about a list of conditions shown on the slide. Most viewgraphs are represented in the Text/Reference as an Exhibit, although usually shorter in length.

Case Studies

Case studies are written as scenarios or stories about particular procurement situations. There are several questions that follow the scenarios relating to the case and the particular lesson. Sometimes you have to use information in the Text/Reference to complete a case study.

Reading Assignments

There will be an in-class lesson for every chapter in this Text/Reference. You are responsible for assigned readings from the chapter. You will spend minimal time listening to lectures. Our philosophy is that you learn best by doing the tasks under simulated conditions.

Testing

There will be two, closed book written tests. They will contain approximately 50 questions each and will be administered on the last day of class each week. The test should take no more than 75 minutes. All test questions were developed to verify the learning acquired from the course learning objectives which appear on the second page of each chapter in the Text/Reference.

USING THE TEXT / REFERENCE AT YOUR JOB SITE

Ease of Use

The Text/Reference was developed to be used at your job site as well as in the classroom. Its step by step approach, FAR references, structured writing, and index are all designed for the easy and quick retrieval of information about the contracting process. Each Text/Reference is "dated" by indicating which FAC of the FAR system it is current through. This lets you know <u>exactly</u> how up to date it is. You may contact the FAI for updates or annotate your own copy as FAR policy changes.

FAR References

Most FAR references are boxed and appear in the left column opposite related text. Where appropriate FAR references also appear under the title of Exhibits.

The book has not yet been written that does not contain some typos, incorrect citations, missing information, or technical inaccuracies. If this book is helpful to you, and you would like to help make it better, please send any corrections you recommend to the FAI in care of GSA-VF, 18th and F Sts., NW, Washington, DC, 20405.

The training materials used in this course were developed by the Federal Acquisition Institute using the

- Macintosh family of computers,
- Aldus PageMaker 5.0 for the Text/Reference,
- MicroSoft Word 5.1 for the Class Exercises and Instructor Guide, and
- MicroSoft PowerPoint 3.0 for the Viewgraphs.

CHAPTER 1

THE PRESOLICITATION PHASE

THE BIG CHANCE

Joyce Reynolds considers herself fortunate. Her boss, Bill Gibson, has just informed her that she is to attend a planning session on a future construction project which is being considered. "Get a cup of coffee and come into my office and we will discuss the project further," he said. This is her first opportunity to be on the ground floor of one in the early stages of development. She has always wanted to be in on the development of a construction project from its' inception and observe first hand what and how decisions are made. The fact that she will play a part in these decisions, and be able to follow the development from beginning to end is exciting. "Thank goodness I have a boss like Bill," she thought as she poured her coffee. "He is a strong supporter of the "cradle to grave" and team concept throughout the acquisition cycle."

As she walked into Bill's office and sat down, he was going through his "incoming" basket which contained a mountain of paperwork. "Some information on the project I spoke to you about is someplace in this stack of papers. Ah, here it is." He began reading from the paper which he had retrieved. "The project is for a Contracts Training Center. It carries a very high priority by the agency, because the client has critical deadlines to meet in training which has recently been mandated by Congress. The project also has some other contracts associated with it, such as extensive painting and renovation requirements for some surrounding buildings. The estimate is somewhere between six and eight million dollars for the building complex and because the project is critical it has been earmarked for an acquisition plan to be executed and approved."

Joyce was both excited and apprehensive. She had never been involved in the execution of a formal acquisition plan, and although she was curious about who does what at that early planning stage, at the same time she wished she knew more about the design process. Her thoughts were interrupted by her boss as he stood up to dismiss her. "Joyce, I chose you to represent the contracts office in all matters concerning this project because I know you will do a great job. Keep me informed of your progress. I will expect a briefing on the project from time to time."

This chapter is designed to take the mystery out of the presolicitation phase of a proposed construction acquisition by discussing:

* *how a need is transformed into a proposed project;*
* *how it progresses through the budget stage;*
* *the strategies that form the acquisition plan; and*
* *the design process.*

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to:

Overall: Describe the events that must occur before the procurement request is forwarded to the contract office.

Individual:

1.1 Describe how a need for a construction project is identified.

- Describe how construction projects are classified.
- Identify the phases involved in a five-year plan.

1.2 Describe the role of the contract specialist in planning the project.

- Determine whether a formal or informal acquisition plan is required.
- Prepare a written acquisition plan.

1.3 Identify the criteria used when deciding whether to design in-house or by contract.

1.4 Describe Brooks Act contracting procedures for the A/E Design.

1.5 Identify the approvals required prior to contracting for construction.

- Describe the process of Congressional approval of the construction project.

- Describe the issues that must be resolved outside the contract office prior to procurement.

INTRODUCTION TO THE PRESOLICITATION PHASE

Impact of Early Decisions

As a contract specialist you may not always be involved in decisions which are made during the early presolicitation phase of an acquisition.

Your first awareness of the existence of a future requirement may be through contact with a project manager, or it may well be with delivery of the actual procurement request package landing on your desk.

Requiring Activity

Many early tasks, which are primarily the responsibility of the requiring or the using activity, have an impact on the procurement request. Examples include:

- determination of need (including special requirements),
- budget strategy,
- establishing acquisition priorities, and
- design effort.

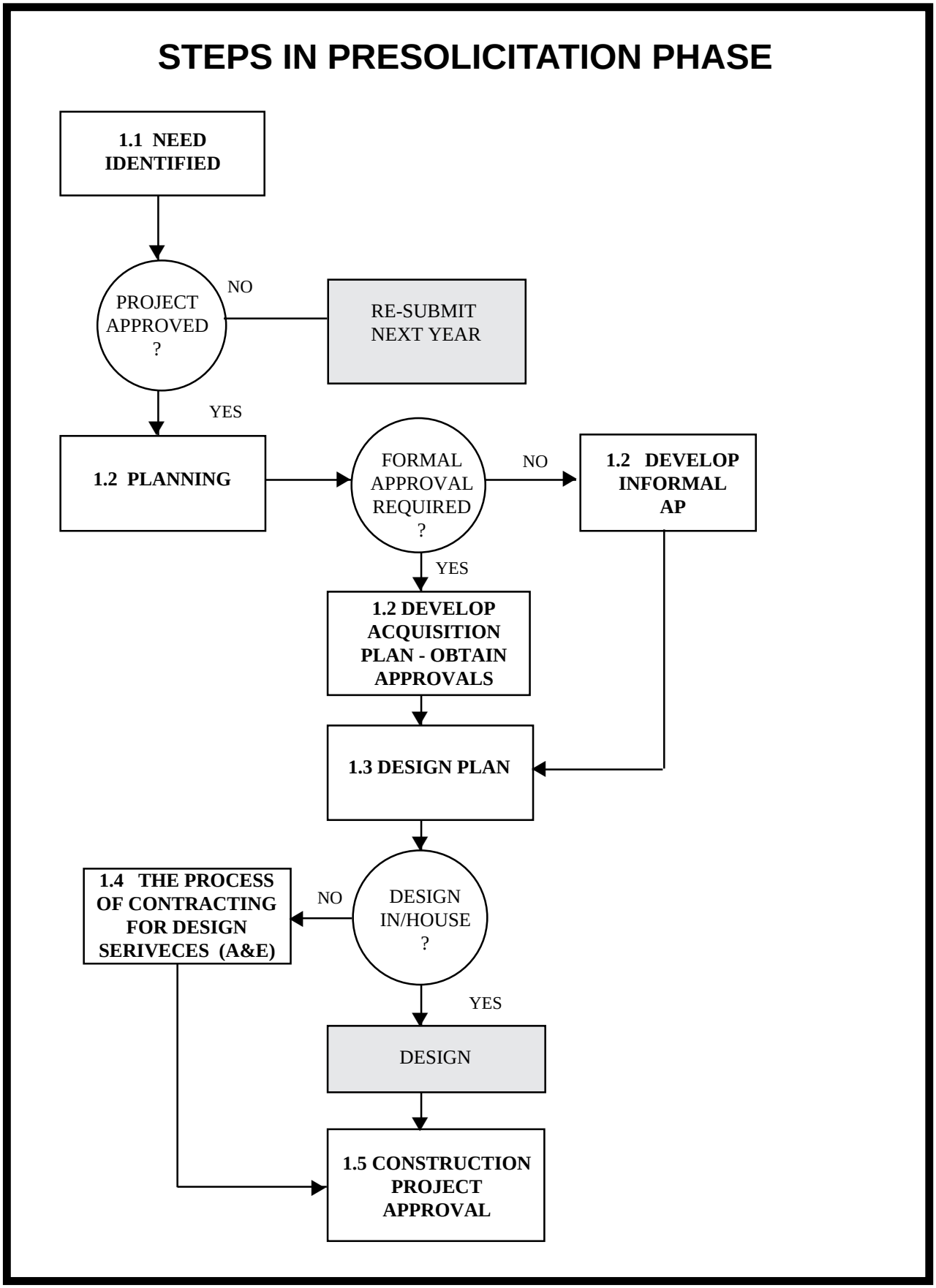
The decisions made by the requiring activity with respect to these tasks can impact on some of your major contractual duties, such as:

- providing for maximum competition,
- selection of contract type, or
- contracting milestone dates.

To become more proficient in your duties as a Contract Specialist, you need to be aware of the events leading to the decisions that are made early in the acquisition cycle.

Steps in Performance

The steps in the presolicitation phase are charted on the next page. Following the flowchart, each step is discussed in turn.


STEPS IN PRESOLICITATION PHASE
1.1 NEED IDENTIFIED
PROJECT APPROVED ?
NO
RE-SUBMIT NEXT YEAR
YES
1.2 PLANNING
FORMAL APPROVAL REQUIRED ?
NO
1.2 DEVELOP INFORMAL AP
YES
1.2 DEVELOP ACQUISITION PLAN - OBTAIN APPROVALS
1.3 DESIGN PLAN
1.4 THE PROCESS OF CONTRACTING FOR DESIGN SERIVECES (A&E)
NO
DESIGN IN/HOUSE ?
YES
DESIGN
1.5 CONSTRUCTION PROJECT APPROVAL

STEPS IN THE PRESOLICITATION PHASE

1.1 Identify Need

In the procurement process, the first step is an acknowledgment of a need which must be satisfied. The need may be:

- real or apparent,
- existing or potential,
- externally pressured or self-generated.

Driving Factors

Determination of need in the construction environment is driven by one or all of the following:

- User driven: The need to establish, improve or upgrade services, such as providing a building or a facility.

- Technology driven: A new, improved or advanced technology which might fill a need by changing the method of operation, such as building a dam or a testing facility.

- Research driven: Complex projects usually generated by studies conducted by the Federal Government or local interest groups:

  - Flood control work.
  - Development of hydroelectric power.
  - Recreation facilities.
  - Water quality control.

Responsibility

Each requiring activity, also commonly referred to as the "user," or "client," has the responsibility to project its own needs for building facilities, providing improvements, dredging, demolition, maintenance, etc.

Program Manager

Once the need is established by the user, it must be communicated to the individual within the **design and construction organization** who acts in the capacity of a Program (or Requirements) Manager. Program Managers work with the user/client to:

- transform needs into working documents,
- obtain funds,
- handle the administrative details, and
- generally support the need.

PRESOLICITATION PHASE

Project Plan

Next, the need must be transformed into a plan, as it will eventually have to compete with other plans and agency budget dollars within your activity. Competition is keen, so it is wise to have an efficient and effective plan.

Congress

In most agencies, once a specific request is generated and a plan formulated, a major project will work its way up through channels to the various Congressional Committees who balance your agency's needs against those of other agencies.

In GSA, for example, projects over $1.5 million are classified as Prospectus Level Projects and require Congressional approval.

The dollar threshold for project approval may vary in other agencies. The time interval between the initial demonstration of the requirement and award of a construction contract normally covers a period of two to three years for major projects.

Classifying Projects

Construction projects are also classified by the user in terms of **time requirements**:

- Short Range: To take care of immediate needs.
- Intermediate: For construction within a two year cycle.
- Long Range: Larger projects in the planning stage.

Or **dollar value**: (Dollar thresholds vary with agencies.) GSA classifies them as follows:

- Minor: Under $1.5 million (Repair and Alteration)
- Major: Over $1.5 million (Prospectus Level Project)

Five Year Budget Cycle

A typical long range project is planned around the five year Congressional budget cycle by identifying the five years in terms of milestones:

- Guidance year (Project initiation)
- Design Year (Concept)
- Budget Year (Final design, cost estimate)
- Program Year (Congress approves)
- Execution year (Contract award)

Construction backlogs are structured into tentative annual programs within the agency's budget. Valid projects which cannot be included within the available resources expected over the next five years constitute the unprogrammed portion of the long term requirement. This means that planning and programing are under constant revision as decisions are made and priorities change.

CONGRESS AT WORK

Thinking back to the vignette at the beginning of the chapter, some of the mystery has disappeared for Joyce as she learned that most client needs are generated by the user working with the Project Manager, and that the project, once defined, works its way through the agency structure to Congress, who eventually either approves or disapproves it for design. In the following budget year Congress again approves or disapproves the project and funds it for construction. The process evolves around the Congressional cycle each year.

The field of construction is as diversified as the uses and the forms of the many types of structures it produces. However, it is commonly divided into four main categories, although there is some overlap among these divisions and certain projects do not fit neatly into them. They are illustrated in Exhibit 1-1.

CATEGORIES OF CONSTRUCTION

1. Housing Construction: single-family homes; condominiums; multiunit townhouses; high rise apartments, etc.

2. Nonresidential Building Construction (Buildings other than housing) institutional; educational; light industrial; commercial; social; religious; etc.

3. Engineering Construction: (Structures of functional consideration rather than aesthetic) sewage and water treatment plants; dams; levees; pipe and pole lines; ports and harbor structures; bridges; reclamation and irrigation; flood control; railroads.

4. Industrial Construction: petroleum refineries; steel mills; chemical plants; electric power generating stations; heavy manufacturing facilities.

Exhibit 1-1

1.2 Planning

During the presolicitation phase of the procurement, Government activity focuses primarily on ① the establishment of the need, ② the identification of funds, and ③ preliminary planning. During this phase, the user/client is working closely with the Program Manager.

Construction projects are complex and time-consuming under-takings requiring careful planning. To some degree, each construction project is unique. Rarely are two projects ever alike. Exhibit 1-2 illustrates some basic considerations in planning the design of a construction project.

Contract Specialist's Role

The contract specialist does not participate in the early development stage of the project. This is the phase where the "seed of need" is planted by the user/client. As the seed grows, the Project Manager (PM) becomes involved with the user/client and through the guidance of the PM the seed eventually becomes a rough concept. It is at this stage that the need for an acquisition plan is recognized.

The contracting officer or the contract specialist will become involved by their participation in the acquisition planning team. If you are placed in this position, it is a good idea to seek out all of the background information available on the project. The more knowledgeable you are, the more you will be able to contribute.

How does acquisition planning differ from procurement planning?

FAR 7.101

Acquisition planning involves the entire process of completing a construction project from its inception to completion.

- Devised and executed by a team consisting of various individuals who represent those who are responsible for completing a quality project for the customer, or client, which is delivered on time, and at a fair and reasonable price.
- Plan must be signed and approved at higher levels.
- If events occur along the way that change the original plan, amendments to the plan must be issued so that approving officials are advised and free to question the changes.

The contract specialist brings contractual expertise and experience to the acquisition team.

Procurement planning encompasses only one phase of the acquisition cycle, addressing basically only the procurement phase.

- May or may not be accomplished by a team.
- Involves the formulation of strategy that is applied to the preso-

CONSTRUCTION PROJECT CONSIDERATIONS

The construction project must be designed in accordance with all applicable codes and standards. Building codes are basic documents covering such disciplines as electrical work, plumbing, fire prevention and safety, mechanical work, property maintenance, energy conservation, elevators, etc. Some of them are:

- Basic Building Code (BOCA) (Used in Eastern and Midwestern U.S.)
- Uniform Building Code (Used on West Coast & some Midwestern States)
- Standard Building Code (Prominent in the South)
- National Building Code (Various localities)
- Guide Specifications (Discussed in Chapter 2 under specifications)
- Material Standards (Discussed in Chapter 2 under specifications)
- American Society for Testing Materials (ASTM)
- The American National Standards Institute (ANSI)

PLANS AND SPECS

Working drawings and specifications must describe the work in sufficient detail for accomplishment under varying conditions.

Although seasonal factors fluctuate with the geographic location and type of construction activity on a national basis, summer is the peak season and winter is a slack period for almost all segments of construction. The reason construction is such a seasonal business is primarily the effect inclement weather and low temperatures have on certain key construction materials and operations. The weather can also create a serious shortage of craftsmen during the summer and unemployment in the winter.

OTHER REQUIREMENTS

Plans must be provided for the construction contractor to set up a temporary field office on Government owned property, if necessary. Access to the site, and an adequate storage area must also be identified.

The building process must follow a natural order of events which are properly sequenced, and in total combination, constitute a pattern of time requirements.

Other highly variable and often unpredictable factors must be considered.

- Availability of:
  labor,
  material,
  subcontractors,
  utilities.
- Vagaries of the construction site:
  subsoil conditions,
  surface topography,
  location of utilities,
  railroad access.
- Other factors:
  proximity of disposal site,
  special permits, licenses, environmental assessment and impact statements,
  identification of any hazardous materials,
  requirements for demolition established.

Exhibit 1-2

licitation, solicitation/award, and administration of the contract cycle.

- Includes the development of strategy to avoid delays, claims, and protests.
- Assures that all laws, regulations, and policies are followed throughout the procurement cycle.

The contract specialist is often entirely responsible for procurement planning on smaller projects and will play a major role in a team effort on more complex high dollar value procurements.

Policy

FAR 7.102

Agencies are responsible for performing acquisition planning in order to promote and provide for full and open competition, or at least to the maximum extent possible.

The method of how and when to accomplish a formal acquisition plan is left to the agency's discretion. However, the broad parameters listed in Exhibit 1-3 must be adhered to.

AGENCY RESPONSIBILITIES

FAR 7.103

All construction contracts must provide for full and open competition. In no case will lack of planning or funding be used as an excuse for failure to comply.

Agencies must review similar construction projects and procurement histories to assure that acquisition planners address past problems that would, for example, preclude using full and open competition.

Establish criteria and dollar thresholds as to when a formal plan is required.

Assure that the same FAR principles apply to the informal plan that are required in the formal plan.

Designate the names and positions of those who will participate in the planning.

Establish procedures for review, approval levels, and standard format.

Exhibit 1-3

The FAR is very specific as to the subject matter to be addressed in an **acquisition plan** (See Exhibit 1-4). You may be involved in recommendations concerning contractual matters being addressed in the plan.

THE ACQUISITION PLAN CONTENTS

FAR 7.105

1. Statement of need: Summarize the technical and contractual history.

   State how, when, and what caused the need for the construction project. What would be the results if it is not acquired? What are the benefits of proceeding with the project? On very large, complex projects, such as one that is involved in an ongoing program, provide the background and the overall program plan. The statement should be to the point. (One paragraph is usually sufficient)

2. Applicable conditions: Is there an urgency for the project? Explain details such as real estate transactions, environmental impact statements, and permits. What is the plan for designing the project? Will it be accomplished in-house, or by A/E contract? Identify critical areas. Are there critical elements other than price?

3. Cost estimates and rationale: Provide the Estimated Cost of Construction (ECC).

4. Capability of performance: Relate to the need. Based on the criticality of the project, is the completion date realistic? Include a statement that the time frame is considered reasonable, weather conditions and other matters considered.

5. Performance period: This is usually specified by number of calendar days. If the project calls for phasing, provide information.

6. List any trade-offs: Include cost of energy saving measures, balanced against energy conservation; or, if the contractors are to be prequalified prior to bidding, loss of time in completing the prequalification process will be traded off in assuring that the awarded contractor will be fully qualified to successfully complete a complex project requiring special skills, in a timely manner.

7. Risks: Discuss technical, cost or schedule risks and what efforts are being made to offset. (Example: Prequalification of bidders often results in protests which would delay the project. List the measures to be implemented to minimize that risk).

   List other risk factors such as recognized contingency factors, risk in awarding the project at such time when inclement weather may be a factor to delay completion of the project, etc.

8. Plan of Action: Describe your plans for each factor.

   Construction Management Services consideration.

   Design plan.

   Type of contract contemplated. Is there a need to conduct discussions?

   Method of contracting.

   Sources.

   Expected competition.

Exhibit 1-4

THE ACQUISITION PLAN CONTENTS

8. Plan of Action: (Continued)

   Source Selection. If source selection, rank the performance elements (cost or price, quality, schedule for completion, approach or method of construction to be used). Determine evaluation technique.

   Contracting considerations. (Refer to Exhibit 1-2.)

   Budgeting and funding. If you intend to use additive, alternate bidding procedures, describe them. If any options are involved, these should be explained briefly here. On very large construction projects sometimes incremental funding is required. Explain here.

9. Product descriptions: List proprietary products which may be required for the project here, as well as brief justification.

10. Contractor/Government performance: (Example: Provision for Value Engineering or other incentives) If Government owned utilities are to be furnished above the standard procedures, explain here.

11. Logistics considerations: (Example: If the construction project is located in a remote area such as an island off the coast, Alaska, unpopulated areas, or in a climate where other logistic problems will be a factor, such as requiring special handling and storage of materials, describe the conditions and the proposed plan to minimize or solve the problems). Include maintenance, warranties and reliability here. (Example: An extended 5 year warranty may be needed on the roofs of buildings because of the specialty of constructing them to withstand severe weather conditions at the site)

12. Quality assurance provisions: If special quality or inspection is needed, explain briefly what level is required.

13. Government furnished property: If equipment or supplies are to be furnished in conjunction with the construction project, identify them. Is equipment off the shelf or specially manufactured?

14. Environmental considerations: List the permits which have been, or must be obtained, as well as any restrictions concerning them. If an environmental impact statement has been filed and received, identify it here, including dates. If asbestos has been identified as a part of the tasks in the project, explain here. Provide information concerning plan for disposal.

15. Security: Any special security requirements must be explained here.

16. Other: Discuss all other considerations. If there are matters of safety which have been identified with the project, explain briefly. (Example. Large crane operations, high rise building safety matters, fire dangers due to welding or blow torch operations).

17. Milestones: (Plan of Action and Management) Explain any time constraints. Address all phases of the acquisition process. Provide such information as to what type of progress evaluation procedures are to be used (i.e. CPM, Bar Chart, PERT). Provide milestones.

18. Provide the names of all participants involved in the acquisition plan.

    NOTE: FAR 7-105 encompasses proposed acquisition plan guidance for all types of contracts. Only those that would typically be addressed in a construction project may be demonstrated in the Exhibit.

Exhibit 1-4 (Continued)

Contract Methodology

A major consideration during the acquisition planning phase is the selection of a method of contracting for your construction services. A variety of terms have developed over time to differentiate variations in the ways of contracting for construction services.

FAR 36.103

Traditionally, construction has been acquired using sealed bid procedures as long as the conditions for its use are met. However, you may also use negotiation procedures. Exhibit 1-6* discusses some of these methodologies and terms.

NOTE: While most construction contracts use a fixed-price type of contract, you may also use a cost reimbursement contract such as cost-plus-fixed-fee. (See FAR 52.216-9, FIXED FEE-CONSTRUCTION.)

Traditional Lump Sum

Federal construction contracts have traditionally been designed, bid, built, and paid for in sequence, with separate contracts issued for the design and construction.

1. The Government first recognizes a need, transforms it into basic minimum requirements, and contracts with an A/E in the private sector for the design.

2. Once the design is accomplished, competitive bidding procedures are used and a contract awarded to a general contractor, who then negotiates small subcontracts for those tasks of the project which it will not perform.

3. The Government traditionally furnishes the site for the project, financing through progress payments, and maintains control over the A/E and the general contractor.

* Exhibit 1-5 reserved.

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Traditional Lump Sum Design/Bid/Construct	* Contract for A-E design services or design in house. * Complete definition of scope, quantities, and quality in drawings and specifications. * Design specification. * Lump sum with unit pricing. * Construction contract awarded based on low competitive bid and bonding required in invitation for bids (IFB).	* Management simplicity. * Cost security. * Risk on Contractor.
Variations - Simplified Plans and Specifications (Small purchase) - Site Adaptation (A/E)	* Simplified procedures. * Technical specifications may show on drawings. * Modification of previously successful design and contract document. Separate contract for construction.	* Fast turn around * Few trades/materials needed. * User has same quality and scope requirements in similar project as adapted.
Design-Build - Prop/Design/Construct	* Design and construction integrated under single contract. * Competitive negotiation for contract award based on conformance with Request for Proposal (RFP), and contractor qualification criteria.	* Good potential for reduced acquisition time and cost for simple projects.

Exhibit 1-6.

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Variations (continued) - Turnkey	* Proposal normally fixed-price, either firm or with economic price adjustment. * RFP contains little more than general description of project; proposals are technical and detailed. Awarded by Source Selection process allowing some subjectivity in selection of proposal for award.	* Well established industry standards. Control after contract award not desired. Proposers willing to risk high cost to compete.
- Design/Land Acq/Const/ Maintenance	* Functions other than design and construction may be typically included, such as land acquisition, financing, as well as operations and maintenance. * Weighted evaluation criteria must be specified in the evaluation criteria. * Successful bidder determined by specific calculations based on evaluation points,or rating system.	* Well established industry standards and materials are available. * Proposers willing to risk high cost in order to compete. * Evaluation of technical proposals requires considerable effort.
- Prop/Design/Construct	* RFP usually based on performance specifications and description. * Proposals are detailed, and evaluated on technical merit and cost.	* Same as Design/Land Acquisition/Const./ Maintenance.

Exhibit 1-6. (Continued)

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Two-Step Sealed Bidding	**STEP 1** * Solicitation for technical proposals without price information. * Proposals evaluated on compliance with RFP. Lots of time required to prepare RFP and to evaluate proposals and make clarifications.	* Specifications or description of work not definite enough to permit full competition without evaluation and discussion of technical requirements. * High risk for proposers.
	STEP 2 * Bids invited for only those proposals accepted in the first step. * Award based on low bid. * Benefit: Obtain state-of-the-art.	* Government willing to accept a wide-range of quality by permitting broad range of technologies to satisfy a general requirement.
Job Order Contracting (JOC)	* Competitively negotiated Firm Fixed Price/Indefinite Delivery - Indefinite Quantity construction contract. * Basic contract issued with pre-priced construction tasks. Contractor bids a coefficient to be applied to the basic prices. * Designed for completing small jobs. Good potential for fast turn around. Contractor motivated by the prospect of more orders being placed. Contractor furnishes drawings. * Standard commercial specifications are used.	* Good management tool. * Fast turn around. * Good potential for quality.

Exhibit 1-6. (Continued)

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Source Selection Prop/Design/Construct	* RFP issued with the evaluation criteria specified. * Requires a Technical Evaluation Board and Selection Authority to be appointed. * Successful bidder selected from established competitive range.	* On complex projects allows for selection of contractor who is technically the best qualified, price and other factors considered. * Allows technical qualifications to be major factor in contractor selection. * Selection of a particular source ensures a high degree of realism. * Stimulates competition. * Can be time consuming.
Packaging (Combining Multiple Projects) Design/Build/Construct	* Multiple line items. Provision must be made to inform the contractor by means of Instruction to Bidders section of the specification, that award will be made on an all or none basis.	* Good possibility of reduced prices. * Effective way of attracting bidders to bid on projects located at remote sites.
Combination **LumpSum - Indefinite Quantities Unit Priced Contract**	* Variation of fixed priced lump sum contract. Used when some portion of the quantities are an unknown. * Bid evaluation is accomplished by multiplying the prices by estimated quantities, added to the lump sum portion.	* Government estimate of quantities must be realistic. * Good for dredging or supplying materials such as rock, gravel, etc. when quantities cannot be determined in advance.

Exhibit 1-6. (Continued)

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Combination Fixed-Price Lump Sum (Continued)		* Unique problem is that the contractor may under or over estimate the unit prices for specific elements of work if there is reason to believe that estimated quantities are not realistic, thereby "buying in".
Term Contract Design/Construct	* Basic contract, 1 year with 2 prepriced option years. * Similar to JOC except no prepriced unit prices. (generic) utilized. * Indefinite Delivery - each work order negotiated.	* Fast turn around for projects. * Simplified specifications
Construction Management Services Contract (CMS)	* Provides a manager who offers diverse expertise in supervising and coordinating any one, or all of the aspects of a construction projects. * Issued as a Service contract. * Source Selection is method most often used. * Uniform Contract Format is used.	* Useful in large, complex projects. * Offers flexibility. * Government deals with only one individual. * Provides continuity from concept to execution. * Allows the Government to execute and administer a contract when in-house capabilities are limited or non-existent.

Exhibit 1-6. (Continued)

CONSTRUCTION PROJECT TERMINOLOGY		
Methodology	**Significant Features**	**Application**
Demolition Bid/Proposal/Demolish/Construct	Contractor submits bid or proposal based on salvage. If salvage value is present the contractor will pay the Government. If not, the Government will pay the contractor. If demolition is to be followed by construction, contract is issued as construction SF 1442. Davis Bacon Wage Rates apply.	* Offers flexibility.
Alternate Bid/Proposal/Demolish/Construct	Same as above. If demolition is not to be followed by construction the contract will be issued as a Service contract using Service contract wage rates and the Uniform Contract Format.	* Offers flexibility

Exhibit 1-6. (Continued)

Exhibit 1-7 provides a comparison chart illustrating the various advantages and disadvantages of the traditional way of construction contracting.

TRADITIONAL METHOD OF CONTRACTING FOR CONSTRUCTION	
ADVANTAGES	**DISADVANTAGES**
Conforms to public policy guarding against favoritism and bias in selecting contractors. Government maintains complete control over all the parties. The Government has a complete design package prior to beginning construction. The Government has a stated fixed-price prior to beginning construction.	May inhibit most efficient time and money. The necessity to complete the design before obtaining bids requires more time in which inflation escalates the cost. Delays occupancy due to long process. Inability to take advantage of fluctuating market prices. Since award is based on price, may not award. May result in more claims to make up for the low price awarded. Makes an assumption of the existence of expertise among private contractors to design a project which most efficiently meets the needs within the available budget. Lack of coordination of professional skill may decrease cost efficiency.

Exhibit 1-7

The contractor agrees to carry out stipulated work in exchange for a fixed sum of money. Lump sum bidding is customary in construction contracts. The contractor is obligated to provide all of the work in accordance with the contract, regardless of the difficulties and troubles that may be experienced in performance. All risk is assumed by the contractor.

Several variations of the lump sum contract format are also used.

For example:

Combining the lump sum price with one or more unit prices when portions of the work cannot be measured or forecasted.*

You may want to consider this type of an arrangement if **dredging or pile driving** is a part of a construction project.

Dredging is normally described as an approximate amount of material to be removed which is expressed in cubic yards. It is difficult to determine the exact amount of soil/sediment to be dredged. Also, dredging often calls for more than one type of material to be removed.

By utilizing the lump sum/unit price method, the dredging can be divorced from the lump sum work and estimated quantities of the various material types and methods of removal established as separate line items on the schedule for the dredging portion to which unit prices are applied.

Design Build

Another method is called "turnkey", which means a contract is awarded to one contractor for both design and construction.

- A similar type of "turnkey" involves more than design and construction. It is often referred to as a **3rd party contract** because it involves project financing, procurement of land, and design-build, with the completed project handed over to the Government for occupancy.

- Still another type of turnkey is **"design-build lease"** in accordance with a functional specification. The contractor is tasked to design, finance and build the project. Instead of turning it over to the Government upon completion, the contracting parties lease

* Be sure to include the QUANTITY SURVEYS clause (FAR 52.236-16) in solicitations providing for unit pricing of items with payment based on surveys.

the facility back to the Government under a long term lease arrangement.

Example:
- **A/E to design/construct;**
- **Bank or lending institution to finance; and**
- **Property Management for the lease maintenance portion.**

Competitive Negotiations

FAR 36.402

If the conditions for the use of sealed bidding cannot be met, you may solicit competitive proposals using negotiation procedures without submission of technical proposals. However, prior to using this method, consideration should be given to using sealed bidding procedures with features such as additive, or alternate pricing arrangements.

Source Selection is used in negotiating construction contracts when it is important for the Government to weigh the technical/management aspect of the contractor. When this method is used, a source selection plan (See Exhibit 1-8) must be developed which becomes a part of your

THE SOURCE SELECTION PROCESS

A specific evaluation group structure is established to evaluate proposals and select the source for contract award.

Generally used in high dollar value procurements.

The source selection may typically consist of an evaluation board, advisory council, and designated source selection authority at the management level above that of the contracting officer. Not all agencies require both an evaluation board and an advisory council.

A source selection plan must be in place and approved, consisting of, as a minimum, the following information:
- Description of the organizational structure;
- Proposed presolicitation activities;
- Summary of procurement strategy, (i.e. matters such as the bidding climate, number of offerors expected to respond, the level of contract quality control required in administering the contract, availability of specialty contractors, and a reasonable completion schedule, taking seasonal weather conditions into consideration);
- Statement of the proposed evaluation factors and their relative importance;
- Description of the evaluation process, methodology and techniques to be used; and
- Schedule of significant milestones.

Exhibit 1-8

acquisition plan on larger projects.

Demolition

Demolition contracts are used for the demolition, salvage, or removal of buildings, structures or other materials. The contractor sometimes pays the Government for the salvage value in relation to the cost of demolishing the structures. In other instances, the Government will pay for the service when salvage value is minimal. Very often the demolition requirement will actually be a defined task included in a construction contract, such as when a building must be demolished and replaced by a new building or a parking lot. Large dollar value demolition requirements however, are often awarded by separate contracts, well in advance of the follow on construction project.

A contract for the demolition of buildings, structures or similar facilities to clear the area to permit new construction, either immediately, or in the foreseeable future, must be supported by Miller Act Bonds, and Davis Bacon Wage Rates, both of which will be discussed in Chapter 2.

<u>If the contract is not intended to clear the area for new construction, then you must plan on the requirement being issued as a service contract</u> with service contract wage rates, which are issued by the Department of Labor for that specific contract. The same applies to contracts calling for timber cutting to clear an area to permit new construction.

Packaging or "Bundling" of Projects

Packaging or "bundling" is used to attract competition by consolidating projects into one solicitation when ① indications are evident that the number of bidders expected to respond to a solicitation may be insufficient to assure that reasonable prices will be received, and ② more than one project is expected to be solicited.

Example:

When a project is constructed in a remote area there may be few, if any, construction contractors in the vicinity in which to perform, and the small dollar value of the project is insufficient to attract bidders from outside the area.

Packaging several projects into one solicitation may spark interest among prospective bidders, creating a competitive atmosphere as well as resulting in lower prices to the Government by pro-rating start-up costs over more than one project.

Other features related to the consolidating of projects:

- If there are any funding restrictions on the dollar amount of any or each of the projects, the solicitation must state what dollar restrictions apply.

- If a lump sum bid is obtained for all projects, a provision must be included in the solicitation requesting that the successful contractor provide a breakdown of the cost for each project prior to award so that the costs over the life of the contract can be applied properly to each project.

- When consolidating projects, the solicitation must contain a provision requiring the bidder to bid on "all or none", and informing the bidder that award will be made on the aggregate total;

FAR 19.202-1(e)

- The procurement activity shall provide a copy of the proposed procurement to the Small Business Procurement Center Representative at least 30 days prior to the solicitation's issuance, along with a statement explaining why the proposed acquisition cannot be divided into small separate contracts.

  Within 15 days after receipt of the notification, SBA must notify the contracting officer that the procurement as proposed, will render small business prime contract participation unlikely. In addition, the SBA representative must recommend an alternative procurement method which would attempt to solve the problem in lieu of "bundling."

THE ACQUISITION PLAN

Returning once again to the vignette at the beginning of the Chapter, Joyce had not participated in an acquisition plan previously, and she had no idea how many considerations there were in drafting an acquisition plan. Now that she has been serving on an acquisition planning team, she knows the importance of choosing the appropriate contract type and the best method of structuring the contract, as well as other matters.

She has also learned that a formal acquisition plan is not always required, but that an informal plan is equally important in developing strategy in order to assure that the project is obtained at a reasonable cost, and within the required completion dates. She is anxious to tell her boss about what she has learned. The knowledge she has gained will be invaluable in working on the CTC project.

1.3 Design Plan

The design plan is an integral part of the overall construction acquisition plan. It involves a decision which is made early in the construction cycle:

whether to accomplish the project design with in-house technicians or by means of issuing an A/E contract.

Strategy

The strategy for developing the design plan in-house is based on:

- Size/complexity of the project.
- Schedule constraints.
- User needs.
- Procurement strategy.
- Funding constraints.
- Availability of criteria needed for design effort. (i.e., topographical, soil investigation surveys, etc.)
- Availability of an existing term contract for design services.
- In-house capabilities.
- Time constraints.

Size of the project and availability of in-house resources are most important in making the decision. Most of the large construction projects within the Federal Government are entrusted to an A/E firm.

Another factor to be considered in design strategy is the time consumed in the A/E contracting process. Exhibit 1-9 represents a typical timetable in an A/E contract award. The lead time can be shortened considerably if a term , i.e. indefinite quantity, contract is already in place, eliminating the need for the selection process.

Phases

Contracts issued to A/E firms normally provide for two or more phases, which are usually awarded sequentially:

1. The initial award is for **conceptual work**, such as identifying and evaluating feasible technical alternatives or approaches which can be chosen.

2. A decision is made by the client and Program Manager as to the most cost effective and advantageous **method of design**. (This normally takes place at the 35%/50% preliminary design stage.)

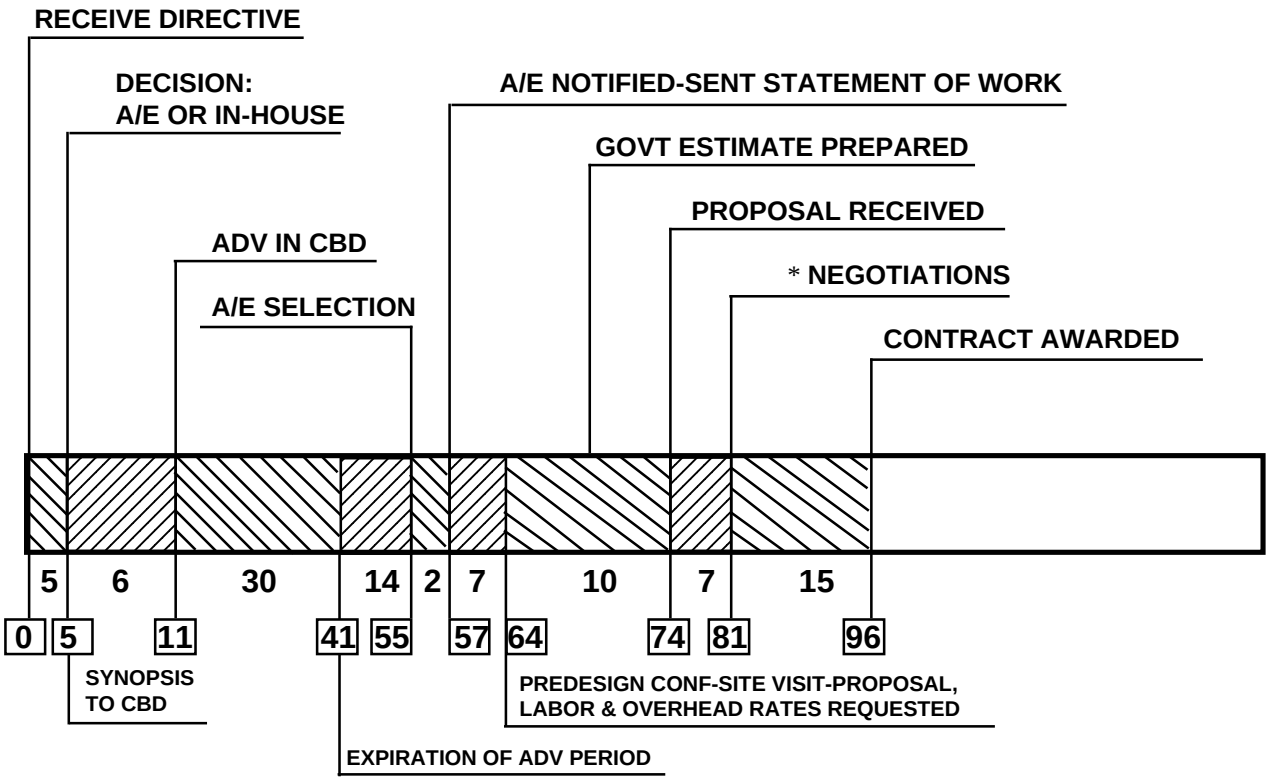
3. Some Government agencies then **revalidate the requirement** and make a go/no-go decision based on factors such as priority, funding, acceptability of the design effort and other matters (regardless of whether the project is designed in-house or by A/E's initial effort.) Other agencies fund the project when both design and construction are approved.

A/E CONTRACT AWARD TIME-T ABLE

(CALENDAR DAYS)

CONCEPT TO CONTRACT AWARD (See Exhibit 1-10)

CONSTRUCTION PROJECT COST UNDER $8,000,000



* Audit is waived.

Exhibit 1-9

1.4 Contracting for the Design

Some procurement offices function in a "cradle to grave" basis, including the design contracting effort. If you are a contract specialist working in such an environment, you have the advantage of insight into the overall design procurement process. The process from concept of the need to final design is illustrated in Exhibit 1-10.

Each agency has its own set of design criteria, specifications, and review requirements:

1. The Veterans Administration, for instance, requires that designers use a strict design process and concept it developed in the early 1970s in response to complaints that it was building facilities to last only 20 years.

2. At the opposite extreme, the U.S. Postal Service allows designers to work with local building codes and write their own specifications.

A/E Selection

The A/E contracting process differs from other traditional methods of contracting:

Selection is made solely on the basis of technical qualifications and expertise.

FAR Subpart 36.6

The process of A/E selection is primarily accomplished by the technical or engineering staff with the contract specialist's involvement limited to advising and assisting on contractual matters. Depending on agency policy, the major role of the contract specialist may be to negotiate the contract after the A/E selection is made.

In the years leading up to World War II, Federal departments and agencies either utilized "in house" personnel to design Federal Buildings and other facilities, or on rare occasions in the case of prominent or unique projects, held design competitions. Competitions were costly and time consuming. As the Federal Government began to increase its defense efforts during World War II, the design competition approach became impractical.

Brooks Act

Therefore, Congress passed a series of laws to authorize the procurement of A/E services. Under the authority of the statutes, the Army and Navy had adopted procedures for the selection of A/Es which were later challenged by the General Accounting Office. In recognizing the need to establish a Government-wide policy concerning the selection of A/E contractors, the Brooks Bill was enacted in 1972. The Act mandates the negotiation of design contracts on the basis of demonstrated competence and qualifications for the type of professional services required.

THE DESIGN PROCESS

STAGE	A/E / IN HOUSE	CUSTOMER (Client)	PROGRAM MANAGER/ TECHNICAL/ ENGINEERING STAFF	
1. Concept to contract award.		1. Identify needs; Speciality criteria. 2. Identify collateral equipment requirements. 3. Works closely with Program Managers throughout this phase.	1. Verify needs*(0) Receive approval to contract. 2. Refine project scope and develop design scope. 3. Determine design in/house or by A/E. *(5) 4. Develop Government estimate. 5. CBD. *(11) 6. A/E selection. *(55)	7. Obtain design approval for project. 8. Provide A/E with scope of work and design criteria. *(57) 9. Proposal received. *(74) 10. Site visit, pre-design conference. *(64) 11. Negotiate and award contract. *(96)
2. Preliminary (10% - 35% - 50%)	Submit: Outline specifications. Preliminary drawings. Basis of design. Soil report. Preliminary cost estimate.	1. Confirm satisfaction of operational requirements. 2. Check layout and size. 3. Finalize collateral equipment requirements. 4. Confirm data requirement.	1. Conformity with master plan (if applicable). 2. Check energy/environ-mental needs. Apply for permits. 3. Review design effort.	4. Look for unusual construction methods or requirements. 5. Request Congress/project approval based on PED (Major Projects) (Prospectus Level Projects)
3. 90%/100%	Submit: Working drawings. Specifications. Cost estimate. Calculations. Color & sample boards.	1. Check surface finishes and colors. 2. Review drawings.	1. Check maintainability. 2. Perform constructability review. 3. Check estimate; design; Division 1 clauses; requirement; bid items; Identify data requirements.	4. Receive Congress/project approval funding and appropriation.
4. Final	Submit Final working drawings. Master specifications. Final cost. Forms & calculations. Color samples. Final detailed cost estimate.		1. Check for completeness of paperwork. 2. Administrative matters. 3. Prepare final detailed Government estimate for construction work.	4. Prepare final drawings and specification for procurement request. 5. If there is a time lag between design and construction, Government estimate must be revised, and the requirement revalidated.

***Number of days from day "0"**

Exhibit 1-10.

The Brooks Act provides for:

- Government-wide policy in the selection process.
- Definition of A/E services.
- Method of announcing A/E awards.
- Identification of A/E employees to do the work. (Including subcontractors)

FAR 36.102

A/E or professional services are divided into three groups:

FAR 36.601-4(a)

1. Those required to be performed or approved by a person licensed, registered, or certified (by State Law) to provide such services.

2. Those performed by contract that are associated with research, planning, development, design, construction, alteration, or repair of real property.

3. Those other services, or incidental services, which members of the A/E professions may logically perform including:

• studies	• value engineering
• evaluations	• surveying/mapping
• tests	• comprehensive planning
• drawing reviews	• program management
• investigations	• plans/specifications
• consultations	• construction phase services
• conceptual designs	• soils engineering

• preparation of operating and maintenance manuals

FAR 5.205(d)

The <u>selection process for an A/E begins with a public announcement</u> in the Commerce Business Daily (CBD) for all proposed A/E contract actions expected to exceed $25,000. Exhibit 1-11 describes the type of information which you should include in a CBD announcement for a proposed A/E contract.

☞**NOTE**: The information contained in the CBD announcement is critical in that the selection procedure and the selection which follows must not deviate from that described in the publication. If the procedures changes, a new CBD announcement is necessary.

Firms interested in being considered will assure that their

FAR 36.702(b)

SF 254, A/E and Related Services Questionnaire, and
SF 255, A/E and Related Services Questionnaire for Specific Project

are submitted by the date specified in the CBD. See Exhibit 1-12 for more detailed information.

CBD ANNOUNCEMENT INFORMATION: A/E CONTRACTS

- Location of work.
- Scope of services required.
- Significant evaluation criteria and their relative order of importance.
- The Magnitude of Construction. (FAR 36.204)
- Statutory construction cost limitation (if any).
- Type of contract proposed for the A/E service.
- Estimated start and completion dates.
- Appropriate statements regarding any specialized qualifications. (Special Experience)
- Security classifications and limitations on eligibility, if any.
- Date by which responses to the notice must be received, including the submission of the SF 255.

Exhibit 1-11

A/E QUESTIONNAIRE FORMS

The Standard Form 254

Provides general background information about the firm such as:

GENERAL INFORMATION

- Name and address.
- Parent company.
- Principals.
- List of personnel by discipline.
- Summary of professional fees.
- Profile of firms' past experience.
- List of projects.

The Standard Form 255

Contains information such as:

SPECIFIC INFORMATION FOR A PARTICULAR PROJECT

- Specialized experience of the firm.
- Professional capacity to accomplish project in required time.
- List of projects.
- Professional qualifications of the project staff.
- Innovative design capability.
- Past experience record.
- Proven cost control effectiveness.

Exhibit 1-12

Scope

You will frequently hear the term "scope of work" when discussing an Architect/Engineer project. Although the term has a different meaning when used in reference to the construction acquisition phase, during the design phase it refers to thewritten document that sets forth the:

- intent of the design project,
- description of professional services required,
- estimated cost of construction,
- schedule of submittals, and
- any special considerations such as options.

The A/E selection process is outlined in Exhibit 1-13.

THE A/E SELECTION PROCESS

FAR 36.602-2(a) and 36.603(a)

Two boards may be established. If only one board is formed, the process is shortened to include only the Selection Board. Boards shall be composed of members who collectively have experience in A/E, construction, and Government acquisition matters; they may be established by geographical region or specialized type of construction.

Preselection Board: (If used)

• Develops and adopts an evaluation procedure and conducts an evaluation based on:

- Qualifications data (SF 254) maintained locally, and
- Data which is submitted by firms responding to the CBD announcement.

The board recommends three to ten qualified A/E firms to be further evaluated by the Selection Board. (The number varies with size and complexity of the project.)

Selection Board:

- Interviews, reviews SF 254 and SF 255, and performance reports.
- Performs an independent analysis of the firms (or reviews the recommendations made by the Preselection Board).
- Ranks firms in order of preference.
- Makes recommendation for final selection of the best qualified firm to the Selection Authority.

Selection Authority:

- Reviews recommendations made by the Selection Board.
- Final selection made by listing in order of preference.
- If the highest ranking firm is not the one recommended by the board, justification must be included in the file.
- Cannot add firms to the Selection Report.

Exhibit 1-13

Exhibit 1-14 lists the criteria to be used by the Selection Board in evaluating A/E firms.

CRITERIA FOR EVALUATING A/E FIRMS

- Professional qualifications
- Specialized experience
- Capacity to accomplish the work on time
- Past performance
- Location in and knowledge of the geographical area of the project

Exhibit 1-14

Negotiations

Once the selection has been made and approved:

- A/E is provided a description of the scope of work, a set of design criteria specifications, and is requested to submit a fee proposal;

FAR 36.606(c)

- A/E is advised that no construction contract may be awarded to its firm (unless approved by head of the agency.)

FAR 36.609-1(b)

- Independent Government estimate is prepared (a negotiated estimated construction contract price is included in the A/E contract as the amount of construction funding limitation per the Design Within Funding Limitations clause, and
- Negotiations are conducted, and once an agreement is reached, a contract is prepared for execution. See exhibit 1-15 for some special aspects of an A/E contract.

If a fair price cannot be agreed upon, as sometimes happens, negotiations are terminated with the first firm on the list and the process is repeated with the second firm. If an agreement can be reached on a fair and reasonable price with a second firm, negotiations are completed. If not, the third firm is next in line.

ELEMENTS OF AN A/E CONTRACT

- There is a 6% statutory limitation of fee for design services based on the estimated cost of construction. [FAR 15.903(d)(l)(ii)]
- Contractor agrees to design within funding available for project under Design Within Funding Limitations clause. [FAR 52.236-22 & FAR 36.609-1(a)]
- Contractor has responsibility of redesign for errors or deficiencies under Responsibility of A/E Contractor clause. [FAR 52.236-23& FAR 36.608]

Exhibit 1-15

1.5 Project Approval

The A/E's progress throughout the design stage is followed closely by the technical staff and Project Manager. Design submittals are required throughout performance. Normally the major submittal is required at what is called the preliminary or the 35% design stage (some agencies classify 50% as the breakout point). It is at this stage that the Government may pause to reflect on:

- the A/E's progress to date,
- the concept of the design,
- the specifications and drawings,
- the preliminary cost estimate, and
- a revalidation of the requirement.

Sometimes a decision is made whether or not to proceed with completion of the design, based on the above, as well as the A/E's Project Engineering Documentation (PED) which is a summary of the project requirements and design solution reflecting the lowest life cycle cost that complies with environmental considerations, etc.

Constructability Review

Usually another submittal is made prior to final completion which undergoes a comprehensive constructability review conducted by the Government to detect any flaws prior to the 100% completion and final payment.

Funding

In some agencies, funding is provided for the 35% or 50% preliminary stage of design by means of a **bulk design fund**; in other agencies the design and construction funds may be combined. Funding to complete the project and approvals to proceed are driven by agency policy and the Congressional Budget process. Agencies direct their objectives to completing the preliminary design for a large part of their proposed programs at the time of the President's budget submittal to Congress in January of each year.

Timing

An equally important goal of the agency is to complete the bulk of all the final designs (100%) by the fall of the following year to ensure that approved project construction can begin shortly after enactment of the authorization and appropriation bills. As construction costs escalate, any significant delays in design completion can result in a substantial loss of buying power in construction dollars. However, it is also true (although much less common) that delays can actually reduce overall costs if the delays occur during a period of economic downturn.

OUR MR. BROOKS

Once more revisiting the vignette presented earlier in the chapter, the other concerns that Joyce expressed vanished at the point when she understood the provisions of the Brooks Bill and how it is applied to the A/E selection process. Because an A/E is selected on qualifications which are technical in nature, Joyce learned that contract specialists do not normally participate in the A/E selection phase, although they participate in negotiations with the selected design contractor. She found that the procedure allows for the selection of an A/E based on technical design expertise and experience, and that price doesn't enter into the selection process. Some day she would certainly like to be a member of a negotiation team on an A/E contract. She made a note of it. Monday morning she will discuss the possibility with her boss, Bill Gibson.

Exhibit 1-16 lists some other related issues, outside of the contracts office, that need to be resolved prior to entering the construction contract phase.

OTHER ISSUES TO BE RESOLVED

- Requirement has been validated, funds are available, and Government estimate is current.
- If real estate is not under U. S. Government ownership, provisions are made to complete transactions to purchase property, including all the necessary easements such as right of way or water rights.
- All impact statements must have been filed.
- All necessary permits have been obtained.
- All other environmental issues have been addressed and resolved. (i.e. problems concerning endangered species.

☞**NOTE**: There may be a period of time between the design of the project and congressional approval of construction. This means that the original A/E estimate may not reflect current costs due to inflation and increased costs.

Exhibit 1-16

CHAPTER 2

THE SOLICITATION PHASE

TIME FLIES

It has been almost a year and a half since the day that Joyce was summoned by her boss, Bill Gibson to attend a presolicitation meeting to formulate an acquisition plan for the Contracts Training Center project. During the interim period, Joyce has been promoted to a senior contract specialist, and now has a trainee by the name of Sondra Wells working as her assistant. It is a busy office. The end of the fiscal year is approaching and the pressure is on to process the work as fast as possible. The bosses words are still ringing in her ears, "Let's get on this solicitation right away Joyce! We cannot drop the ball now! Having been involved on the planning of this project, I don't have to remind you how important this project is." Joyce didn't need to be reminded, but she wondered how she was going to handle it with all of the other projects pending in her "in" basket.

As an experienced contract specialist, Joyce recognizes the importance of a thorough review of the procurement request documents, the plans and specs, as well as the documentation. Even though it takes time, the review pays off in terms of preventing future project delays, protests and post award problems.

"I have a great idea" said Joyce as she approached Sondra's desk with paper and pencil in hand, "How would you like to work on this project with me in a team effort? That way you will gain experience and I will gain some valuable time to spend on other urgent projects on my desk. Besides, two heads are always better than one." "That's a terrific idea Joyce; I would really like the opportunity," Sondra said without hesitation. Joyce reminded Sondra that they would first have to obtain permission from their boss, but since he is a proponent of teamwork, she felt sure he would see no problem with the arrangement. The request would also entail obtaining the approval of the acquisition team assigned to the project. In order to allow Sondra to sit in as an observer during any future meetings and planning sessions, concurrence of her team members would be appropriate. "As a matter of fact, I will go see Bill right now." she said, looking over her shoulder as she headed for his office. "If we can get his approval we can start to work first thing in the morning." Just as Joyce predicted, Bill endorsed the idea.

Sitting at her desk later, Joyce started jotting down questions on her note pad which she anticipated Sondra would be asking. "She will make a good contract specialist," thought Joyce. "She has a curiosity about her that leads to a lot of questions." Joyce wanted to have the answers readily available.

* *Why is it necessary to review a procurement request?*
* *Why review the specification and drawings? ("After all, we are contract specialists, not engineers!")*
* *What is meant by a "guide specification"?*
* *Why issue a presolicitation notice, when we are going to advertise the project later in the CBD anyway?*
* *What kind of information has to be compiled in the contracts office before it can be advertised in the CBD?*
* *What is meant by a CSI format?*
* *What is different about compiling and handling construction bidders mailing lists from any other?*
* *How can you market a construction project?*
* *What if wage rates change before a bid is opened?*

"These are all good questions," thought Joyce as she tucked the note pad away in her desk drawer. Discussing them with Sondra should offer a her good understanding of the solicitation phase before launching into the actual project.

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to:

Overall: Perform all tasks associated with issuing a construction solicitation.

Individual:

2.1 Review procurement request.

2.2 Review specification and drawings.
- Describe Guide Specifications and their purpose.
- Identify proprietary or "brand name or equal" products.
- Review drawings.
- Identify type of specification.
- Determine if use of a Statement of Work (SOW) applies.

2.3 Identify social programs impacting on construction.

2.4 Identify information needed for formulating solicitation.
- Determine magnitude of the project.
- Select appropriate wage rate.
- Identify the Hometown Plan applicable.
- Establish amount of liquidated damages.
- Establish bid opening date.
- Select an appropriate site visit date.
- Identify bonding requirements.

2.5 Prepare presolicitation notice.
- Determine if notice required.
- Publicize notice in the CBD.

2.6 Prepare solicitation using CSI and SF 1442.
- Utilize FAR Matrix to select construction clauses/provisions.

2.7 Determine extent of marketing needed.

2.8 Issue the solicitation.
- Establish construction plan holder's lists.
- Determine whether to charge for plans, specs.
- Determine number of bid sets to meet demand.

2.9 Amend or cancel the solicitation.
- Determine if it is necessary to amend for wage rate change.

INTRODUCTION FOR THE SOLICITATION PHASE

FAR 14.202-6

The Contracting Officer must review every solicitation package prior to issuing an IFB or RFP to insure that the solicitation:
- is error free,
- promotes competition,
- contains no ambiguities, and
- results in offers for goods and services at a reasonable price.

Reviewing the PR

You, the contract specialist, initiate this process of building a solicitation that meets these criteria by carefully reviewing and processing the procurement request (PR). Because each construction project is unique, you must thoroughly research and analyze the PR and any information related thereto in order to ① fully understand what is being procured and ② be able to plan the procurement.

Building the Solicitation

Not surprisingly, the most significant source for potential success or failure, lies in the description of the technical requirement in the form of specifications and drawings.

After information is gathered, you prepare the solicitation documents by:
- selecting the appropriate clauses and provisions,
- following the construction contract format, and
- adding information as required.

Revising the Solicitation

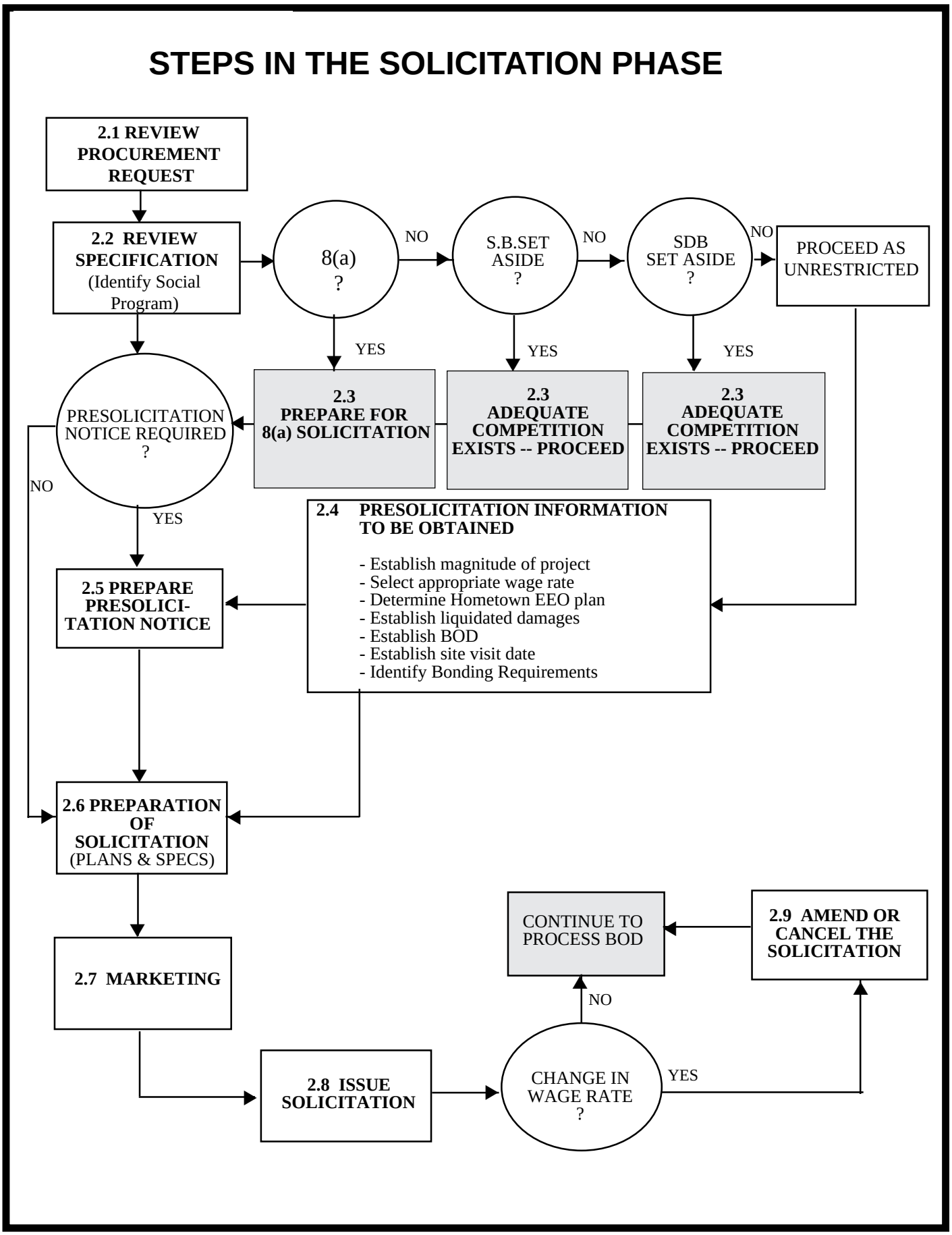
Once the solicitation is issued, you must manage construction specific problems that may arise, leading to prebid inquiries, amendments to the solicitation, or even to the cancellation of the solicitation.

Your solicitation will ultimately become a contract, which in turn will result in the construction or repair of a building or a facility. As a Contract Specialist, you want it to be the best that can be acquired.

Steps in Performance

The steps in the solicitation phase are charted on the next page. Following the flowchart, each step is discussed in turn.

STEPS IN THE SOLICITATION PHASE



STEPS IN THE SOLICITATION PHASE

2.1 Review Procurement Request

The receipt of the Procurement Request (PR) in the procurement office usually starts the solicitation phase. It will be accompanied by:

- the specification,
- numerous full or 1/2 size drawings (folded or stuffed into tubes), and
- other documents.

In small dollar value projects, the PR for construction may be a matter of a few pages and the first notice you receive that the requirement exists. In more complex procurements, planning has been going on for weeks and months, and the receipt of the PR becomes an important checkpoint in the process. The documents generated can assume the dimensions of a good size catalog.

An example of a typical procurement request form is contained in Exhibit 2-1. The one used by your agency may vary in format.

Reviewing the procurement request will help you to understand what kind of facility is being procured, as each construction project is one-of-a-kind. It may be similar to other building projects, but with enough variances to make it unique. Typical construction elements of a procurement request package are shown in Exhibit 2-2.

The PR should be precise. If there are any major deficiencies or omissions, the CO should not accept it, but rather contact the requiring activity (client) or the Project Manager to obtain any missing information or to make the necessary corrections.

☞ **EXAMPLE:** A procurement request received in the procurement office for housing construction calls for three separately phased completion times:

Phase A - **garages** - 180 days.
Phase B - **houses** - 310 days.
Phase C - **paving** - 110 days.

The specification as written is not clear as to whether the three phases could be performed consecutively or if they are to be performed concurrently.

In addition, the specification also fails to apply liquidated damages to the phasing of the project.

REQUISITION/PROCUREMENT REQUEST FOR EQUIPMENT, SUPPLIES OR SERVICES

PAGE OF

2. REQUISITION/PROCUREMENT REQUEST NO.	3. ACT NUMBER	4. DATE PREPARED	5. JOB/PROJECT NUMBER

6. TO: (Stockroom/Contracting Office, Name and Location)	7. FROM: (Requisitioning office, Name, Symbol, Location and Telephone Number
D&C Contracts Branch Contracts Division (9PPC) 525 Market Street, 29th Floor San Francisco, CA 94105	Design & Construction Division 525 Market Street, 31st Floor San Francisco, CA 94105
8. FOR INFORMATION CALL (Name and Telephone Number)	9. RECEIVING OFFICE (Name, Symbol and Telephone Number)

10. ACCOUNTING CLASSIFICATION

FUND	ORG. CODE	B/A CODE	O/C CODE
FUNC CODE	C/E CODE	PROJ/PROS. NO.	CC-A
W/ITEM	CC-B	PRT/CRFT	

11. CONTRACT NUMBER

12. CONTRACT NUMBER

13. ITEM NO. FORM OR STOCK NO	14. DESCRIPTION OF ARTICLES OR SERVICES	15. QUAN-TITY	16. UNIT OF ISSUE	17. UNIT PRICE	18. AMOUNT
CQM FIRM:					
CBD ADVERTISEMENT REQUEST:					
PROJECT NUMBER:	ZCA9 REGIONAL OFFICE BUILDING				
LOCATION:	REGION 09 WIDE				
SCOPE:	CONTRACT MANAGEMENT				
(Block 10)					
CAPITAL PROGRAM CQM:					
NEW CONSTRUCTION:	192X				
R&A PROSPECTUS:	192X				
REIMBURSABLE:	192X				
TERM AE:	192X				

IF ADDITIONAL SPACE IS REQUIRED, USE REQUISITION/PROCUREMENT REQUEST (Continuation)

19. TOTAL AMOUNT INCLUDING CONTINUATION →

20a. TYPED NAME AND TITLE OF FUND CERTIFYING OFFICIAL			
20b. SIGNATURE	DATE	21b. SIGNATURE	DATE

22. LIST ATTACHMENTS

(X) CBD DRAFT ADVERTISEMENT
(X) ESTIMATE
(X) DRAFT SOLICITATION
(X) SCHEDULE
( ) JUSTIFICATIONS
(X) SADBU RECOMMENDATION
( ) SUGGESTED SOURCES

23a. TYPED NAME OF APPROVING OFFICIAL

23b. SIGNATURE | DATE

24. SHIPPED VIA

☐ FREIGHT ☐ PARCEL POST ☐ EXPRESS ☐ MAIL

25. FILLED BY	26. PACKED BY	27. CHECKED BY

28. BILL OF LADING NUMBER	29. DATE SHIPPED

Exhibit 2-1

TYPICAL ELEMENTS OF A CONSTRUCTION PROCUREMENT REQUEST

BLOCK #	
1	• Procurement request form (Agency specific; some agencies do not use a PR).
5	• Project number.
8	• Point of Contact
10	• Certification of funds available for the project (Usually attached).
14	• General information and project description.
22	• Specifications and drawings. (Attached)
	• Wage rate classification (i.e., Residential, Building, Highway, Heavy Equipment).
	• Justifications for: ✓ Use of an "experience" clause or special license. ✓ Waiver of synopsis. ✓ Sole source procurement. ✓ Large dollar value liquidated damages which exceed the norm. ✓ Proprietary items contained in the specification. ✓ Pre-qualification of bidders. ✓ Any special agency requirements for approvals. ✓ Request for a waiver of the Buy American Act - Construction Materials clause.
	• Small and Disadvantaged Business representative recommendation.
	• Estimated cost of construction at time of award (ECCA).
	• Proposed schedule for additive/alternate bid items (If applicable).
	• Suggested sources.
	• Identification of specialty subcontractors.
	• Other special requirements (i.e., proposed site visit date, requirement for Pre-Bid Conference, special packaging of projects, etc.).

Exhibit 2-2

Funding

FAR 32.702

It is improper to solicit offers unless there is a reasonable expectation that a contract will be awarded. Therefore the availability of funds generally must be certified on the PR before offers are solicited. The appropriation data should be entered on the PR. You must pay particular attention to the accounting and appropriation data in terms of the following:

- Construction projects are normally appropriated for a specific purpose and dollar amount depending of the type of project and dollar value.
- Repair and rehabilitation projects are funded from a different account. (The Department of Defense has four sources for construction funding: Military Construction, R&D, O&M, and Procurement.*)
- Funds must be adequate for the procurement.

FAR 45.302-1(b)(2)

NOTE: Agencies shall not use R&D funds to provide contractors with new construction or improvements of general utility under facility contracts, unless authorized by law.

OJT ON THE PR

In the scenario at the beginning of the chapter, Joyce jotted down a number of questions which she anticipated that her assistant trainee might be asking. One of them addressed why a procurement request package must be reviewed, and another asked why review plans and specifications. Joyce decided to do some on the job training.

"Sondra, I think the best way for you to understand why this is an important step is for me to assign a procurement request package for you to review. But first, let's discuss why a review is necessary". "Let me see if I can use logic and figure it out myself," said Sondra. "I would say that we probably conduct a review in order to see how many mistakes we can catch. Isn't that right?" "Ummm, not entirely," Joyce replied. "There is more to it than that. Since the Contracting Officer is responsible for the contents of the solicitation, it is our job to assure that

(l) all of the required documents have been submitted and are sufficient, including all required justifications, Determinations and Findings (D&Fs),

(2) the plans and specifications do not contain ambiguities, omissions or errors, and

(3) all of the laws, regulations and policies are conformed with."

* GAO Report #NSIAD-91-251, August 1991, Military Construction.

2.2 Review Specifications

FAR 14.202-6

In order to detect and correct any deficiencies, contracting officers must thoroughly review each solicitation before issuance. Every Government acquisition begins with the formulation of a description of work. The description of desired performance is described in plans, drawings, standards, procurement descriptions, technical specifications and other conditions which are included in the solicitation. These are frequently referred to in construction as "**plans and specs.**" They may also be referred to as:

- work statements,
- schedules, and
- similar designations.

Definition of Specification:

FAR 10.001

> "Description of the technical requirements for material, products or services that includes the criteria for determining whether these requirements are met. Specifications shall state only the minimum needs and be designed to promote full and open competition, with regard to the nature of the supplies or services to be acquired."

Both drawings and specifications are essential in describing a construction project. Drawings use a language of symbols with minimum use of narrative language. They present form; they are visual and graphic. The specification presents quality, providing technical and legal requirements. Exhibit 2-3 represents an example of what each should contain.

Reviewing Drawings

The contract specialist's review of drawings is somewhat cursory. The **key** to the review is the same as it is for reviewing the specification; **knowing where to look for problem areas**. Start the review process by quickly scanning the "NOTES" column on the drawings. Look for:

- mention of materials; (The description should be generic.)
- specific types and trade names. (They belong in the specification.)

Drawings are also separated by trade (i.e., mechanical, electrical, plumbing, etc.) There should be one or more drawings for each division of the specification. In addition to the overall drawings, detail drawings are also included.

Because of the number of drawings involved in a construction specification, drawings are sometimes lost or misplaced during handling and reproduction. In order to be assured that all of the drawings have been included, compare the listing of drawings by number to the index of the drawings which may be found in the Additional General Paragraphs of the specification.

SPECIFICATIONS AND DRAWINGS

A Construction specification contains such information as:

- Types and quality of materials.
- Methods of installing and fabricating.
- Quality control for workmanship, inspection and tests.
- Alternative or optional materials or methods.
- Acceptable allowances and tolerances.
- FEDSPEC or MILSPEC requirements.

Drawings contain such information as:

- Location of the project on site.
- Location in the project of materials, equipment and components.
- Overall dimensions of the project.
- Detailed dimensions of size and location.
- Dimensions of equipment.
- Interrelationships between materials, equipment, and connections.
- Identification of types of material.
- Schedules of doors, windows and finishes.
- Notes, giving the basic design data, assumed loads, allowable stresses, design references and requirements.

Exhibit 2-3

Guide Specifications

In order to facilitate the A/E in designing a project, agencies have developed guidelines or "Guide Specifications" with the intent to

- promote uniformity of construction,
- provide requirements that have been coordinated with industry, and also
- serve as convenient worksheets which may be used by the designer in preparing project specifications.

"TAILORING" A GUIDE SPECIFICATION

* Assure that it is current and contains all of the latest changes,
* Select only the paragraphs provided in the Guide Specification that are applicable to the specific project,
* Fill in the blanks provided with alternative words and phrases which are applicable, and
* Add or delete any special paragraphs that may be necessary. (Adding or deleting paragraphs that are written without allowing choices may require approval, depending on agency policy.)

Exhibit 2-4

Guide Specifications serve as manuscripts in preparing specifications and contain alternate ways and means of design, so that choices are given to fit any particular circumstance. Prior to issuing a Guide Specification to an A/E, the Government must first "tailor" it to fit the project requirements. Exhibit 2-4 illustrates what must be done.

Certain Guide Specifications may be applicable to all projects, while others will vary from project to project. The typical Guide Specification covers information by specific sections (See Exhibit 2-6):

- Part I addresses general information;
- Part II describes products or materials, and
- Part III describes quality and how the tasks are to be done.

Whether or not you are involved in issuing or administering A/E contracts, all Contract Specialists should be familiar with their agency Guide Specifications, the format and their purpose. Copies are usually available in your engineering division.

FAR 10.006(a)(5)

NOTE: The mandatory use of specifications and standards listed in the Index of Fed. Specs., Standards, and CIDs is exempted for construction acquisition as nationally recognized industry and technical source specifications and standards are available.

MORE OJT ON GUIDE SPECS

Joyce decided that since Guide Specifications are agency specific and rather difficult to describe, the best way to familiarize Sondra with them would be to provide her with a copy of one to review: "Electrical - Interior Fire Alarm Systems" in buildings. GSA, Veterans Administration, and Bureau of Reclamation are for example, users of this Guide Specification.

Material Standards

There are many standard material specifications that are sponsored by the Federal Government and a variety of technical societies which are applicable and referenced in Government specifications. They have been devised by specialists in their fields and are universally accepted within the Government and the construction industry. Federal specifications prescribe technical requirements for materials, products, and services procured by the Federal Government. Some of them are described in Exhibit 2-5.

MATERIAL STANDARDS	
STANDARD	**USE**
American Society for Testing & Materials (ASTM)	Referenced to control the quality of portland cement, reinforcing steel, asphalt, insulation and a host of other construction products.
American National Standards Institute (ANSI)	Used widely on material and product standards of agreat variety. (i.e. Metal, steel, petroleum products, paints, textiles, plastics, rubber, electrical insulation, electronics, water and environmental technology, etc.
American Association of State Highway and Transportation Officials (AASHTO)	Test standards pertinent to highway and airfield construction.
Chain Link Fence Manufacturers Institute (CLFMI)	Standard for chain link fencing and associated material and equipment.

Exhibit 2-5

Since you are performing the review function on behalf of the Contracting Officer, you must have a clear understanding of WHAT is being procured and what your responsibilities are in the review process.

Even though the construction specification is written by engineering experts you will soon become familiar with commonly used terms as a result of the review process. More important is your ability to understand the Construction Specification Institute* (CSI) format which allows you to quickly locate contractual information which may be included in the specification. This format provides for 16 divisions which are listed in Exhibit 2-24. Exhibit 2-6 describes the three basic sections for each division of the format.

CSI FORMAT
PART 1 - GENERAL Contains information such as the applicable references for the specification, a general description of the project, the submittals required, drawings, and matters concerning safety.
PART 2 - PRODUCTS Contains the descriptive information on products, materials, etc. which are required for the project.
PART 3 - EXECUTION All information concerning installation, testing requirements, inspection of each discipline, etc. is found here.

Exhibit 2-6

* Some agencies prefer the American Institute of Architects (AIA) format which is similar to CSI.

Each basic Division of the technical specification will usually be made up of numerous guide specifications each bearing a five digit number; the first two digits of which are the division number. These guide specifications are tailored to the project. For example:

Number	Title of the Guide Specification
15011	General Mechanical Requirements
15250	Insulation of Mechanical Systems
15400	Plumbing
15850	Air Handling & Distribution Equip.

These guide specifications could make up the requirement for a particular project. If however there were no requirements for any element falling within any of the categories listed, the Division would not be included in the specification.

☞ **EXAMPLE:** If you are reviewing a specification to identify any proprietary items, brand names or equal, or similar language which may be contractually unacceptable, or which may require justification, you should turn to the PRODUCTS Section of any of the divisions which may call for a product (i.e., Mechanical, Electrical, Plumbing Divisions). If you are looking for experience requirements, you would find them in the PART 1, GENERAL and PART 3, EXECUTION sections of each Division.

One of the more important issues involves compatibility between type of specification and contract type and/or method of contracting proposed. Although it is certainly possible to have a "pure" design, performance or functional specification, it is far more probable that any given set of specifications will have a mixture of at least two of the three types. Construction specifications are usually of the design and/or performance types. Definitions of the three are illustrated in Exhibit 2-7.

Statement of Work

There are occasions when a Statement of Work (SOW) may be appropriate rather than a complete detailed specification. In such instances, assure that the brief description is complete, clearly written, and encompasses only the actual minimum functional need. Drawings may be used in the form of sketches. A SOW may be appropriate under the following circumstances:

- Requirements under small purchase procedures.
- Urgent and compelling requirements to be negotiated.
- Job Order Contract (JOC) requirements. (See Exhibit 1-6.)
- Requirements obtained under an Indefinite Quantity Contract.

TYPES OF SPECIFICATIONS DEFINED	
Design:	Specifies precise measurements, tolerances, materials, in-process and finished product tests, quality control, and inspection requirements.
Performance:	Describes desired operational characteristics. Measurements and other specific details are neither stated nor considered important, so long as the contractor accepts the responsibility for design, engineering and achievement of the performance requirements, and exercises judgment or discretion.
Functional:	Describes in detail a project or product in terms of performance characteristics and intended use. Similar to performance specification.

Exhibit 2-7

Period of Performance

In reviewing a construction specification, you should always include a review of the performance schedule requirement. The completion date(s) specified in the construction contract are usually described in terms of a number of days rather than a specific calendar date and is explained in detail in the General Requirements Section.

FAR 12.403(c)

Check to see if the VARIATION IN ESTIMATED QUANTITY clause has been inserted in the solicitation when a fixed-price construction contract is contemplated. It authorizes a variation in the estimated quantity of unit-priced items and an extension of the period of performance. (See Exhibit 8-17 for text of clause.)

FAR 12.104(b)

EXAMPLE:

- The period of performance is specified as being the number of calendar days from date of Notice of Award, or Notice to Proceed.
- The requirement may also be expressed in terms of multiple completion dates which may be phased. In this instance, performance is usually specified as being concurrent with other phases, or consecutive with performance on other phases.
- If performance is expressed in phases, you must be sure that the liquidated damage calculations also reflect the same requirement, with liquidated dollar amounts to be assessed in accordance with the phasing.

Establishing Completion Dates

During design of the project, factors which are normally taken into consideration by an A/E in establishing completion dates are based on the:

FAR 12.102(b)

- nature and complexity of the project;
- construction seasons involved (Considering local conditions);
- client's desired/required completion date;
- availability of materials and lead time to obtain them, including equipment;
- capacity of a typical contractor to perform;
- use of multiple completion dates;
- need for environmental considerations; and
- past history on a similar project.

2.3 Identify Socio-Economic Programs

Although the Government's primary interest in procuring a facility is based on a least-cost basis by assuring that competitive bids are received, the Government has also implemented through the procurement process, certain policies to assure that various basic socio economic objectives are met.

Construction contracts are perhaps affected by socio-economic laws more than in any other type of contract.

- By nature, performance on construction contracts is accomplished primarily by small businesses.
- Davis Bacon Act and the Contract Work Hours Safety Standards Act require close monitoring, even to the subcontractor level of performance. No other Act requires weekly review of payrolls (except for the Certification requirement in compliance with the Copeland Act). Not only is the dollar amount paid for wage classifications watched closely, but other benefits as well.
- Equal Employment Opportunity is also monitored very closely.
- Strict adherence to Buy American - Construction Materials clause

Set-asides

The Contracting Officer must make a decision as to which social law takes precedent in the setting aside of a construction acquisition. Because of the differences in construction versus supply or service contracts, most decisions to be made regarding a construction contract revolve around three set-aside programs:

1. Small Business
2. SBA 8(a)
3. Small Disadvantaged (and Emerging Small Business under the Small Business Competitiveness Demonstration Program).

Exhibit 2-8 provides a list of socio-economic programs which are associated with construction and shows the enormity and importance these social programs have on construction contracting.

EXAMPLES OF SOCIO ECONOMIC OBJECTIVES IN CONSTRUCTION CONTRACTS

PROGRAM	AUTHORITY	PURPOSE
Business Opportunity Development Reform Act of 1988 (1991)	P. L. 100-656	Establishes The Small Business Competitiveness Demonstration Program.
Contract Work Hours Safety Standards Act (CWHSSA) (1962)	40 U.S.C. 327-32 et. seq. **FAR 22.403-3**	Prescribes a forty hour work week, and health and safety standards for laborers and mechanics on public works.
Officials Not to Benefit	41 U.S.C. 22	Prohibits members of Congress from benefiting from any Government contract.
Copeland Anti-Kickback Act (1934) (1986)	40 U.S.C. 276c & (18 U.S.C. 874) 41 U.S.C. 51-58 **FAR 22.403-2**	Prohibits kickbacks from employees on public works.
Covenant Against Contingent Fees	10 U.S.C. 2306(b) & 41 U.S.C 254(a)	Voids a contract which is obtained by a broker for a fee.
Gratuities	10 U.S.C. 2207 **FAR 3.201**	Provides Government with right to terminate if gratuity is given to a Government employee to obtain contract or favorable treatment.
Buy American Act - Construction Materials (1933)	41 U.S.C. 10a-10d **FAR 25.205(a)**	Provides preference for domestic materials over foreign materials by disallowing foreign materials to be used in a construction project.
The Small Business Act (1953) with multiple amendments	15 U.S.C. 631-647. 10 U.S.C. 2301 & 41 U.S.C.	Places a fair portion of Government purchases with small business concerns.
Fair Labor Standards Act (1938) Amended in 1977 (1990)	29 U.S.C. 201-219 et. seq. **FAR 22.1003-3(a)**	Essentially exempt: does specify minimum wages/hours for construction work which may have a close tie with other work.
Occupational Safety and Health Act (1988)	29 U.S.C. 651-678	Ensures a minimum level of occupational safety and health protection for the country's work force.

Exhibit 2-8

EXAMPLES OF SOCIO ECONOMIC OBJECTIVES IN CONSTRUCTION CONTRACTS

PROGRAM	AUTHORITY	PURPOSE
Miller Act (1935)	40 U.S.C. 270a-d **FAR 28.102**	Requires the contractor to provide pay ment and performance bonds on Government construction contracts.
Civil Rights Act of 1964, as amended by the Equal Opportunity Employment (1965)	Executive Orders 11246 & 11375 **FAR 22.804-2**	Prohibits discrimination in Government contracting by an Affirmative Action Program. A "Home Town Plan" must be identified and adhered to in construction contracting.
Age Discrimination in Employment Act (ADEA) (1964)	Exec. Order 11141 **FAR 22.9**	Forbids arbitrary age discrimination in employment.
Vietnam Veterans Readjustment Act (1972) Rehabilitation Act (1973) (Amended 1974)	P.L. 92-540 38 U.S.C 2012 **FAR 22.1302(a)** **FAR 22.1402(a)**	Federal construction contractors must give employment preference to disabled veterans, Vietname Era vetrans and qualified handicapped persons.
Convict Labor Act (1905, 1973)	18 U.S.C. 4082 (c) (2) Executive Order 11755 **FAR 22.201(b)**	Restricts employment of prison inmates in the performance of Government contracts.
Walsh-Healey Public Contracts Act (1936)	41 U.S.C. 35-45 **FAR 22.605(a)(3)**	For Federal contracts exceeding $10,000, prescribes minimum wages, hours, age and working conditions. Can apply to supply portions of a construction project (i.e. equipment).
Davis-Bacon Act (1931)	40 U.S.C. 276a-l-5 **FAR 22.401-3**	Prescribes minimum wages, benefits and working conditions on construction con tracts in excess of $2,000.
Clean Air Act (1970)	42 U.S.C. 1857h-4	Prohibits contracting with a company convicted of a criminal violation of air pollution standards.
Equal Employment Opportunity (1965)	Executive Orders 11246 & 11375	Prohibit discrimination in Government contracting.

Exhibit 2-8

Your Agency may have a Small Disadvantaged Business Utilization Specialist or a Small Business Representative whose responsibility it is to make recommendations as to which program is preferable to the solicitation. However, the Contracting Officer makes the final determination. It is your responsibility to review the recommendation made by the Small Business specialist, and based on information available, bring to the attention of the contracting officer any problems you may be aware of in the recommendation. Most agencies utilize a form such as the one contained in Exhibit 2-9 for the recommendation.

Small Business

The entire amount of an individual acquisition or class of acquisitions, (however, see Demonstration Program below) including contracts for:

- architect-engineer services
- maintenance
- repair
- construction

FAR 19.502-2(a)

shall be set-aside for exclusive small business participation if the Contracting Officer determines that there is a **reasonable expectation** that

(1) offers will be obtained from at least two responsible small business concerns, and
(2) awards will be made at fair market prices.

FAR 52.219-14

If any part of a requirement is set aside for small business including 8(a), then, per the LIMITATIONS ON SUBCONTRACTING clause, the SB concern must ① perform at least 15% (not including cost of materials) of the contract cost with its own employees for general construction or ② 25% for construction by special trade contractors.

FAR 19.502-3(a)

Small Business and Labor Surplus Area partial set-asides are generally not applicable to construction projects.

The small business size standard for a construction concern is defined as:

FAR 19.102(g)

> One which is independently owned and operated and which is not dominant in its field of operation. In addition, the offeror's size is dependent on aggregating annual receipts over a three year period of not more than $17 million dollars for major groups 15 and 16; $13.5 million for dredging; and $7 million for special trades (group 17).

A breakdown of the various classifications is provided in Exhibit 2-10.

Small Business Competitiveness Demonstration Program

Established by the "Business Opportunity Development Reform Act of 1988," the demonstration program consists of **two major components**:

1. Test of unrestricted competition in 4 designated industry groups;
2. Test of enhanced small business participation in 10 agency targeted categories.

SMALL BUSINESS/LABOR SURPLUS SET -ASIDE REVIEW FORM

1. Case No.

2. P.R. NO.

REQN NO.

3. Total Estimated Value

4. Date

5. Priority

6. Project Description

6a. Quantity

7. Small Business Size Standard

SIC Code _____

Employees = _____

Dollar $_____

8. Purchase Office Code

9. FSC SVC Code

10. Claimant Program Code

11. Subcontracting Plan:
Total Estimated Value Meets Subcontracting Plan Requirements Threshold

☐ Yes

☐ No

NOTE: Subcontracting Plan will be submitted to the Small Business Specialist for review.

12. Recommendations: (If all recommendations are "no", block 14 must be completed.)

YES	NO			
☐	☐	8(a)		
☐	☐	8(a) Competitive Set Aside		
☐	☐	SDB Set-Aside "potential"		
☐	☐	HBCU - MI Set-Aside	_____ %	$ _____
☐	☐	Labor Surplus Set-Aside	_____ %	$ _____
☐	☐	Small Business Set-Aside	_____ %	$ _____
☐	☐	Small Business - Small Purchase Set - Aside		
☐	☐	Unrestricted		

13. Synopsis Required:

☐ Yes ☐ No

If "no", cite FAR 5.202 exception

_____

14. Reason Set-Aside Not Initiated/Additional Comments:

15. Procurement History:

☐ First Time Buy

☐ Previous Acquisition *(check all that apply)*

- ☐ 8(a)
- ☐ 8(a) Competitive
- ☐ SDB Set-Aside
- ☐ SB Set-Aside
- ☐ Set-Aside for Emerging SB
- ☐ Other
- ☐ Two or more responsive SB offers on prior acquisition.
- ☐ One responsive SDB offer within 10% of award price on prior acquisition.

Reviewed by SBA

_____ _____

SBA Representative Date

16. The Procurement Officer: ☐ Concurs ☐ Rejects

Recommendations (Document Rejections on Reverse Side)

_____ _____

Procurement Officer Date

SB Specialist: ☐ Concurs ☐ Accepts

NOTE: Any change in the procurement plan described herein will require return for re-evaluation by the SADBU Specialist.

_____ _____

SB Specialist Date

Exhibit 2-9

THE CONSTRUCTION STANDARD INDUSTRIAL CLASSIFICATIONS

(S I C) FAR 19.102

DIVISION C - CONSTRUCTION

Major Group 15 Building Construction - General Contractors and Operative Builders

S I C	DESCRIPTION	SIZE
1521	General Contractors Single Family House	$ 17.0
1522	General Contractors - Residential Buildings Other Than Single Family	$ 17.0
1531	Operative Builders	$ 17.0
1541	General Contractors - Industrial Buildings and Warehouses	$ 17.0
1542	General Contractors - Nonresidential Buildings Other Than Industrial Buildings and Warehouses	$ 17.0

Major Group 16 - Construction Other Than Building Construction -General Contractors

S I C	DESCRIPTION	SIZE
1611	Highway and Street Construction	$ 17.0
1622	Bridge, Tunnel, and Elevated Highway Construction	$ 17.0
1623	Water, Sewer, Pipe Line, Communication and Power Line Construction	$ 17.0
1629	Heavy Construction, Except Dredging, N. E. C.	$ 17.0
1629	Dredging and Surface Cleanup Activities	$ 13.5

Major Group 17 Construction - Special Trade Contractors

S I C	DESCRIPTION	SIZE
1711	Plumbing, Heating (except electric), and Air Conditioning	$ 7.0
1721	Painting, Paper Hanging, and Decorating	$ 7.0
1731	Electrical Work	$ 7.0
1741	Masonry, Stone Setting, and Other Stonework	$ 7.0
1742	Plastering, Drywall, Acoustical, and Insulation Work	$ 7.0
1743	Terrazzo, Tile, Marble, and Mosaic Work	$ 7.0
1751	Carpentering	$ 7.0
1752	Floor Laying and Other Floor Work, N.E.C.	$ 7.0
1761	Roofing and Sheetmetal Work	$ 7.0
1771	Concrete Work	$ 7.0
1781	Water Well Drilling	$ 7.0
1791	Structural Steel Erection	$ 7.0
1793	Glass and Glazing Work	$ 7.0
1794	Excavating and Foundation Work	$ 7.0
1795	Wrecking and Demolition Work	$ 7.0
1796	Installation or Erection of Building Equipment,	$ 7.0
1799	Special Trade Contractors, N. E. C.	$ 7.0

Exhibit 2-10

The four designated industry groups are:

FAR 19.1005(a)(1)

1. **Construction** under Standard Industrial Classification (SIC) codes that comprise Major Groups 15, 16, and 17 (excluding dredging).
2. **Refuse** systems and related services.
3. **Architectural and engineering** services under SIC codes 7389, 8711, 8712, or 8713.
4. **Ship repair** (nonnuclear).

The targeted agency participants are:

FAR 19.1004

- Department of Agriculture
- Department of Defense
- Department of Energy
- Department of Health and Human Services
- Department of Transportation
- Environmental Protection Agency
- General Services Administration
- National Aeronautics and Space Administration
- Department of Veterans Affairs.

FAR 19.1006(c)(1)

Construction contracts at or below the "reserve amount" established by the Office of Federal Procurement Policy are set aside for "Emerging Small Businesses."

SBA 8(a) Program

Section 8(a) of the Small Business Act established a program that authorizes the Small Business Administration (SBA) to

FAR 19.805-1

> enter into all types of contracts with Federal agencies and let **subcontracts** for performing those contracts with firms who are referred to as “8(a) contractors”.

FAR 19.803(a)(5)

Selecting contractors for participation in the 8(a) program is the responsibility of SBA, and is based on specific criteria. It is sometimes accomplished through the cooperative efforts of the agency in matching the agency’s requirements. The 8(a) construction contractor, in addition to the standard criteria of capability, is also selected on the basis of the concern’s capabilities in, and qualifications for accomplishing various types of maintenance, repair, alteration, and construction work in specific categories such as mechanical, electrical, heating and air conditioning, demolition, building, painting, earth work, paving, waterfront work and general construction work.

In addition, the contractor's capacity is measured in each construction category in terms of estimated dollar value (i.e. electrical, up to $100,000), as well as an assessment of the contractor's bonding capacity.

Exhibit 2-11 describes the basic program as it impacts on construction.

THE 8(a) PROGRAM

- Selecting contractors for an 8(a) contract is the responsibility of SBA.
  - Information on the 8(a) firm's capabilities with respect to construction trades is provided to the agency by SBA. **FAR 19.803(a)(5)**
  - SBA will also provide information as to the bonding capability of the firm. **FAR 19.803(b)(3)**
- Selecting acquisitions for the 8(a) program is a cooperative effort between SBA and the agency.
  - Agency should evaluate number and nature of construction projects planned. **FAR 19.804-1(a)(1)**
  - Agency should advise SBA of the location of the construction project. **FAR 19.804-2(a)(5)**
- If SBA accepts a requirement as a sole source, the SBA will advise the contracting activity of the 8(a) firm selected for negotiation. SBA may authorize direct negotiation with the selected contractor.
- Whether it is considered sole source or competitive, an 8(a) contract may not be awarded if the price of the contract results in a cost to the agency which exceeds the fair market price.
- Under a testing program for construction contracts not exceeding $3 million (including options), from August 15, 1988 through October 1, 1994, the SBA is authorized to exempt its contractor from Miller Act requirements for performance and payment bonds in accordance with SBA regulations. **FAR 19.808-1(b)**

Exhibit 2-11

Competitive 8(a) Program

Under an additional 8(a) program, requirements are also competed among qualified 8(a) contractors. When there is a reasonable expectation that at least two eligible and responsible 8(a) firms will submit offers, and award can be made at a fair market price, the Contracting Officer shall consider an 8(a) competed set-aside.

The criteria is set forth in Exhibit 2-12.

THE COMPETITIVE 8(a) PROGRAM

FAR 19.805

Criteria for Competitive 8(a) Set-aside

- Reasonable expectation that at least two eligible and responsible 8(a) firms will submit offers and award can be made at fair market price.
- Anticipated award price of a contract, including options, will exceed $3 million for construction.
- Contracting agencies must use either sealed bidding or competitive proposal method of contracting.
- Offers must be solicited from sources identified in accordance with SBA procedures.
- In competitive negotiations, the Contracting Officer will conduct negotiations directly with the various firms.

Exhibit 2-12

Subcontracting Plan

FAR 19.702

Under the Small Business Demonstration Program

> "Any contractor receiving a contract for more than the small purchase limitation, shall agree in the contract that small business concerns and small disadvantaged business concerns shall have the maximum practicable opportunity to participate in contract performance consistent with its efficient performance."

Furthermore, any construction contractor who is classified as a large business who intends to perform on a contract or modification which individually is expected to exceed $1,000,000, and that has subcontracting opportunities, shall submit an approved subcontracting plan in order to be eligible for award.

The subcontracting plan requirement has a significant impact on construction contractors because of the

- large number of subcontracting opportunities involved in construction projects, and
- construction projects for most Government agencies, fall among those designated groups who are exempt from the set aside requirements.

This results in a large number of solicitations for construction falling under the "unrestricted" category. (See Chapter 5.6 for information on administering the subcontracting plan.)

The procurement request package should contain the Small Business Representative's recommendation concerning the social program considered applicable to the project, but the ultimate decision rests with the Contracting Officer.

If the Contracting Officer has determined that the solicitation is to be unrestricted, then you will be responsible for

- putting the prospective bidders on notice that the procurement is unrestricted and
- that if awarded to a large business, the subcontracting plan will be required.

The notice should appear on the face of the solicitation and must also be communicated in the Presolicitation Notice and the Synopsis. Exhibit 2-13 describes some of the features of the subcontracting plan requirement.

PLAN FOR THE PLAN

Since most large construction projects are issued on an unrestricted basis, the need for submission of a subcontracting plan is a frequent requirement associated with construction solicitations. Based on the information given, the CTC project that Joyce and Sondra will be working on will be issued on an unrestricted basis, and if awarded to a large business, will require a subcontracting plan to be submitted and approved. Joyce will have an opportunity to further explore the subject with Sondra later in Chapter 3, when the requirement will be discussed further.

SUBCONTRACTING PLAN REQUIREMENTS

FAR 52.219-9

FEATURES	CONTRACTING PHASE AFFECTED
• If the selected bidder fails to submit a plan within the time limit prescribed by the Contracting Officer, the bidder will be ineligible for award.	*Award*
• Exemptions from the requirement : Small Business Concerns Personal Services Contracts Contracts and modifications performed outside the United States.	*Solicitation*
• Any contractor or subcontractor failing to comply in good faith with the requirements of the plan during performance is in material breach of contract.	*Administration*
• The plan must include the following: ✔ Separate percentage goals for using small business concerns and small disadvantaged concerns as subcontractors. ✔ Name of contractor employee who will administer the plan. ✔ Description of efforts the contractor will make to ensure that small business and small disadvantaged businesses will have an equitable opportunity to compete. ✔ Offeror agrees to include Utilization of Small Busness Concerns & Small Disadvantaged Business Concerns clause in all subcontracts. ✔ Assurances that the offerer will cooperate in any studies or surveys that may be required. ✔ The plan will contain a description of how the offerer plans to locate and maintain lists of possible subcontractors who qualify.	*Award*

Exhibit 2-13

2.4 Identify Solicitation Information

All advance notices and construction solicitations* must state the magnitude of the construction project in terms of:

- physical characteristics, and
- estimated price range.

Magnitude of Project

The purpose of the requirement is to provide the prospective bidder with an idea of ① the dollar magnitude of the project; ② the amount of bonding that will be required; and ③ a general description of the project.

In no event may the statement of magnitude disclose the Government estimate. It magnitude is expressed as a monetary range as shown in Exhibit 2-14.

MAGNITUDE OF THE CONSTRUCTION PROJECT

FAR 36.204

- Less than $ 25,000
- Between $ 25,000 and $ 100,000
- Between $ 100,000 and $ 250,000
- Between $ 250,000 and $ 500,000
- Between $ 500,000 and $ 1,000,000
- Between $ 1,000,000 and $ 5,000,000
- Between $ 5,000,000 and $ 10,000,000
- More than $ 10,000,000

Exhibit 2-14

Select Wage Rate

FAR 22.403-1

The appropriate Davis-Bacon Wage Rate must be identified as being applicable to the project and is included, complete with all amendments, in the solicitation. The Davis-Bacon Act, enacted in 1931, authorizes the determination of wage rates, including fringe benefits, that must be paid laborers and mechanics on all Federal construction projects:

> "...wages of laborers and mechanics shall not be less than the wage rates specified in the schedule of prevailing wages which are determined by the Secretary of Labor to be applicable to the location of the proposed construction site."

FAR 22.403-4

The rates are based on like work on similar projects located in the vicinity in which the work is to be performed. Regulations regarding the role of DOL are codified in Title 29, Subtitle A, CFR.

* The information should be stated on the face of the SF 1442. (See Chapter 2.6)

The purpose of the law is to:

- protect local wages,
- protect local economies, and
- put union and nonunion firms on a more nearly equal footing when competitively bidding on Federal projects.

Originally its purpose was to protect local construction wage earners from predatory, itinerant contractors who were taking advantage of an oversupply of labor during the depression years. The contractors were importing workers at a very low wage to work on Government jobs, and could easily underbid the local contractors because of the low wage rates. Public clamor for Congress to take action to correct the situation resulted in passage of the Davis-Bacon Act.

Davis-Bacon wage rates apply to all contracts **in excess of $2,000** for construction, alteration, or repair of "public buildings", including all utility systems within, or attached to, a building.

Sometimes you have to determine if Davis-Bacon applies, if the Service Contract Act applies, or neither or both applies. For example:

FAR 22.402(a)

- Davis-Bacon does apply to:
  - painting of public buildings in connection with the original construction or as alteration or repair of existing structure.
  - manufacture or fabrication of construction materials in connection with the construction and on the site of the work by the contractor otherwise subject to Davis-Bacon.
- Davis-Bacon does not apply to:
  - employees of railroads, closely related R & D, or home office employees.

FAR 22.402(b)(2)(i)

  - to construction work that is incidental to the furnishing of supplies, equipment, or services.

FAR 37.301

- Dismantling, demolition, or removal of improvements requires Davis-Bacon only if further work which will result in the construction, alteration, or repair of a public building or public work at that location is also contemplated.

The Department of Labor publishes construction minimum wage determinations in the Federal Register, and generally they are effective for a period of one year. The wage rates are divided into four classifications:

- Residential
- Highway
- Building
- Heavy

as described in Exhibit 2-15.

CLASSIFICATION OF WAGE RATES

FAR 22.404-2

Residential: These rates are to be applied only to single-family housing units, including apartments up to, and including, four stories. Residential units do not include playgrounds, streets through family housing areas, or centralized utilities serving several detached units.

The Department of Labor has also ruled that work involving dormitories, military bachelor officer quarters and temporary living facilities are not classified as residential, but are classified as being in the building category.

Building: These rates should be applied to contracts for work involving buildings that do not fall under the above definition of residential structures. Note that buildings must have "walk in" access. Any Davis Bacon Act work that is performed on, or within, such a facility is "Building" in character. For example, renovation of an indoor basketball court or swimming pool would be performed under the building schedule.

Highway: These rates should be applied to projects involving the construction, alteration, or repair (including striping) of roads/streets, runways, taxiways, alleys, trails, paths, and parking areas. The Highway schedule should be applied to these projects, whether a street is located in a family housing area, office area, or elsewhere.

Heavy: These rates are applied to projects that do not fall under the definition of Residential, Building, or Highway. This category is a catch-all and applies to virtually all outdoor projects not characterized as Highway, as well as to "quasi-buildings" with no walk-in access. Examples include exterior cable and utilities, antenna towers, water mains, sewers, and outdoor playgrounds and sports facilities (such as swimming pools and playing courts).

☞ **NOTE:** Projects for work that is of more than one character, i.e. Building and Heavy, or Building and Highway, may require application of more than one wage rate schedule. The general rule is to apply a second schedule if more than 20% of the project will involve work of a different character than the major portion of the project. If in doubt, check with the Department of Labor. On very large projects a second or third wage rate may apply. If more than one type applies, you must put the bidder on notice of the multiple wage rates and establish definite parameters as to which one applies to what portion of the work.

Exhibit 2-15

To identify the applicable wage rate:

STEP 1: Review the 16 divisions* in the technical specification attachment to your procurement request.

STEP 2: Identify all disciplines or trades called for in the project.

STEP 3: Select the correct schedule(s) (Residential, Building, Highway, or Heavy).

* See Exhibit 2-23 on Technical Specifications

STEP 4: Match the published wage rate for the geographic area where the construction will take place, find the classification which you have identified as appropriate, and verify that all of the disciplines needed for the project are included.*

If no wage rate has been issued for any particular discipline(s) needed for the project at hand, or there is no wage rate issued for the geographic area involved, you must obtain one from the Department of Labor, as follows:

STEP 1: Prepare a SF 308-Request for Determination and Response, as illustrated in Exhibit 2-16. (See **NOTE** on page I-9.)

STEP 2: Attach a sufficiently detailed description of the work to indicate the type of construction schedule involved.

STEP 3: Submit to the Regional Administrator, Employment Standards Administration, Department of Labor Wage and Hour Division in your locality.

STEP 4: Allow 45-60 calendar days for the Determination to be issued.

The wage rate is effective for 180 days from date of determination.

Instructions for Completing Standard Form 308 (Exhibit 2-16)

Blocks 1-4	Self explanatory.
Block #5	Provide the projected date that the solicitation is expected to appear in the Commerce Business Daily.
Block #6	Provide bid opening date.
Block #7	List the prior decision number, if available.
Block #8	The estimated value of the contract is the magnitude of the construction project.
Block #9	Type of work is the classification of work involved in the project.
Block #10	Provide the exact location, city, street, county and state
#11, #12	where the project is to be performed.
Block #13	Address to which the DOL should mail the wage determination.
Block #14	If the agency has performed a wage survey attach a copy of the findings.
Block #15	If a wage survey is being performed, but not completed, answer accordingly.
Block #16	Description of work must be specific. Describe the disciplines which will be involved and the work to be done.

* Refer to your Classroom Exercise Book, Exercise Number CE-2.4 which contains an example of a wage rate issued by the DOL.

U.S. DEPARTMENT OF LABOR
EMPLOYMENT STANDARDS ADMINNISTRATION

REQUEST FOR DETERMINATION AND RESPONSE TO REQUEST

(Davis Bacon Act As Amended and Related Statutes)

FOR DEPARTMENT OF LABOR USE

Response to Request

a. Use area determination issued for this area

_____

_____

b. The attached decision noted below is applicable to this project.

_____

_____

Decision Number

Date of Decision

Expires

Supersedes Decision No.

Approved

Requesting Officer (typed name and signature) (1)

Department, Agency, or Bureau (2)

Phone Number (3)

Date of Request (4)

Est. Advertising Date (5)

Est. Bid Opening Date (6)

Prior Decision (7)

Est. $ Value of Contract (8)
- ☐ Under 1/2 Mil.
- ☐ 1 to 5 Mil.
- ☐ 1/2 to 1 Mil.
- ☐ Over 5 Mil.

Type of Work (9)
- ☐ Bldg.
- ☐ Highway
- ☐ Resid.
- ☐ Heavy

Location of Project (city if other than description) (10)

County (11)

State (12)

Address to which wage determination should be mailed. Must be complete and include ZIP code. (Print or type) (13)

Wage Survey by Agency Attached (14) ☐ YES ☐ NO

Wage Survey by Agency in Progress? (15) ☐ YES ☐ NO

Description of Work (Be specific) (Print or type) (16)

CHECK OR LIST CRAFTS NEEDED
(Attach continuation sheet if needed)

_____ Asbestos workers
_____ Boilermakers
_____ Bricklayers
_____ Carpenters
_____ Cement masons
_____ Electricians
_____ Glaziers
_____ Ironworkers
_____ Laborers

_____ Lathers
_____ Marble and Tile Setters, Terazzo Workers
_____ Painters
_____ Piledrivermen
_____ Plasterers
_____ Plumbers
_____ Roofers
_____ Sheet metal workers
_____ Soft floor layers
_____ Steamfitters
_____ Welders-rate for craft
_____ Truck drivers
_____ Power Equipment operators (specify types)

_____ _____

_____ _____

Other crafts

_____ _____

_____ _____

Facsimile of SF 308 June 1972
U.S. DEPARTMENT OF LABOR
(29 CFR) Subtitle A, Part 5

Exhibit 2-16

Hometown Plan

FAR 22.810(f)

All construction solicitations over $10,000 which contain the Equal Opportunity Clause must also include the AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION clause. The clause calls the bidder's attention to the Equal Opportunity Clause and requires that

FAR 52.222-27(i)

> "the contractor will take affirmative action to ensure that minority and women applicants are employed, and that employees are treated during employment without regard to their race, color, religion, sex, or national origin".

The clause is located in the General Paragraphs section of the specification, and in most Government offices it is the contract specialist's duty to provide the fill-in information concerning the applicable goals for minority and female participation in each trade.

Each contracting agency should maintain a listing of all geographic areas that are subject to the pre-established affirmative action requirements which include goals for minorities and women in covered construction trades.

FAR 22.804-2

The lists, by geographic areas, are published periodically in the Federal Register or are available from any regional Department of Labor Office of Federal Contract Compliance Programs (OFCCP) office and are referred to as **"Hometown Plans".** They are derived from tripartite union agreements (between contractors, unions, and the local community) which have been reached by establishing percentage goals for a particular area.

- By signing the contract, the contractor certifies that it will make a "good faith" effort to achieve the specified goals.
- Compliance is measured against the total work hours performed on the contract, and by the "good faith" effort the contractor has expended toward meeting 16 explicit affirmative action steps in meeting the goals which have been specified.
- The contractor must also file a written notice with the OFCCP within 10 days of the award of any subcontract in excess of $10,000, furnishing general information concerning the award. (i.e., contract number, dollar value of the contract, and projected completion date.)

FAR 22.805

Although there is no requirement to have a preaward clearance performed on a proposed award of a construction contract by OFCCP, there is a requirement that a Federal construction contractor with

- 50 employees and
- contract value of $50,000,

must prepare and maintain a written affirmative action program at each

establishment which must set forth the contractor's policies, practices and procedures in hiring.

> Once covered by this requirement, it will apply to all of the contractor's employees actually engaged in on-site construction work and spread over all of the contractor's projects.

To obtain the percentage goals for a given solicitation, the Contract Specialist needs only to refer to the listing and by identifying the area where the construction will take place, the predetermined goals are provided. The AFFIRMATIVE ACTION COMPLIANCE REQUIREMENTS FOR CONSTRUCTION clause itself provides a blank space where the percentages are to be inserted in the solicitation. The minority goal may fluctuate from one geographic area to another (as well as change periodically), whereas the 6.9% pertaining to female employees has been established on a national level and has not changed since 1982.

Estimate Liquidated Damages

FAR 12.202

Construction completion dates are usually expressed in terms of a number of calendar days from the date of award of the contract. Failure to complete the project on time is a breach of contract and makes the contractor liable to the Government for damages. The assessment against the contractor for late completion is known as "liquidated damages."

The Contracting Officer shall evaluate the need for liquidated damages in construction contracts when compiling a solicitation. You may need to consult your agency's policy on the amount of liquidated damages to assess. They must be determined and included in the Information to Bidders section of the solicitation. Most agencies require justifications when damages called for appear to be excessive.

FAR 12.204(b)&(c)

> Use the LIQUIDATED DAMAGES - CONSTRUCTION clause in solicitations. (See Exhibit 9-15 for text of clause.) If Alternate #1 is used, also include TIME EXTENSIONS clause.

Typical value of liquidated damages appearing in construction contracts vary from $50 to $1,000 per calendar day, although higher values are occasionally stipulated. (Some agencies, however, prefer to assess only actual damages.) Liquidated damages must establish a rate of assessment that is reasonable and representative of the harm that is expected to be suffered by the Government if the contractor fails to perform.

The courts have consistently held that if the

> amount of liquidated damages stipulated is so disproportionate to the amount of the probable loss, as to show that compensation was not the object of the liquidated damages, the damages are regarded as a penalty and cannot be enforced.

FAR 12.203(b)

The preset dollar amount should be for each day of delay, and as a minimum, should cover the cost of inspection and superintendency for each day of delay in completion.

Exhibit 2-17 lists some typical examples of damages that the Government might suffer when the contractor fails to deliver on time.

TYPICAL EXAMPLES OF DAMAGES

- Cost of providing substitute facilities.
- Rental of buildings and/or equipment to provide temporary quarters.
- Logistics matters, (i.e. cost of moving personnel twice instead of once).
- Temporary storage of equipment.

Exhibit 2-17

Establish Bid Opening Date

The Contracting Officer is usually responsible for establishing the date and time for opening of bids. When establishing a bid opening date for a construction contract, you should consider matters other than the 30 day synopsis requirement.

- On large complex construction projects, 30 days may be insufficient to allow ample time to prepare a bid. Construction contractors usually have many subcontractors (trades) to solicit and obtain quotations from before a bid can be compiled. The process is time consuming.
- Avoid scheduling a bid opening that would be held on the same day as other large bid openings in the same area. A conflict could affect competition.
- Avoid scheduling a bid opening around holiday periods, if possible. Traditionally, bid openings during holiday periods usually result in less competition.

Site Investigation

The SITE INVESTIGATION AND CONDITIONS AFECTING THE WORK clause must be included in all solicitations for construction.

FAR 52.236-3

Under the clause, the construction contractor has a **duty** to perform a site investigation (not mandatory):

- prior to submitting a bid
- to discuss any obvious discrepancies that could be discovered by a

reasonably prudent person during a site inspection,

- but doesn't have to verify all of the representations in the solicitation documents.

Exhibit 2-18 lists the duties of a Contract Specialist as related to site investigations. Some agencies have developed a specific clause to invoke the site visit as mandatory.

SITE INVESTIGATION ARRANGEMENTS

FAR 36.210

1. Arrange site visit with requiring activity, or request the Project Manager to do so.

2. Place notice of site visit in solicitation including:
   - security clearances (if any) required prior to visiting.
   - time and place.
   - point of contact and phone number.

3. Arrange for prospective bidders to examine data such as:
   - boring samples and logs. (See PHYSICAL DATA clause FAR 52.236-4)
   - records and plans of previous construction.
   - information related to utilities.

4. Request those conducting the site visit to record names of all company representatives who visit the site, including other pertinent data, including date, time, etc.

5. Assure that those conducting the site visit understand the conduct that is necessary in protecting the competitive bidding system.

Exhibit 2-18

Bonds

The Contracting Officer must establish that bonds are required, and in what amount, so that the solicitation may include the information.

FAR 28.102-1

The **Miller Act** prescribes the requirements for performance and payment bonds used in conjunction with Federal construction projects. Enacted in 1935 and subsequently amended, this statute provides that on all Federal construction contracts of more than $25,000, the contractor shall furnish

- a performance bond for the protection of the United States Government, and
- a payment bond for the protection of persons supplying labor and materials in the prosecution of the work.

It further provides:

1. That the workers, subcontractors and material suppliers on construction contracts dealing with the prime contractor, have the **right to sue** if payment is not received in full within 90 days after the labor is completed and materials furnished.

2. The **law** extends its provisions to include first-tier subcontractors and material suppliers and second-tier subcontractors and suppliers, but no further.

Bond amounts are illustrated in Exhibit 2-19.

BONDS FOR CONSTRUCTION

FAR 28.102-2

Performance Bonds:	100% of the original contract price unless the Contracting Officer determines that a lesser amount would be adequate for the protection of the Government.
Payment Bonds:	The amount of payment bond must equal: • 50% of the contract price if the price is not more than $1 million. • 40% of the contract price if the contract price is more than $l million, but not more than $5 million; or • $2.5 million dollars if the contract price is more than $5 million.
Bid Guarantee:	At least 20% of the bid price, but shall not exceed $3 million.

Exhibit 2-19

FAR 28.101-3(b)

A bid guarantee is required only when a performance bond or a payment bond is required. The Contracting Officer determines the bid guarantee amount, which must be adequate to protect the Government from loss, should the successful bidder fail to execute further contractual documents and bonds as required. In some instances, such as overseas construction, the chief of the contracting office can waive the requirement as not being in the Government's best interest.

FAR 28.101-1(c)

FAR 28.001(b)

Annual bid bonds, acceptable in supply and service contracts, **are not** acceptable in construction contracts.

2.5 Prepare Presolicitation Notice

FAR 36.701(a)

At this point in processing the procurement request package, you must (unless waived by the Head of the Contracting Activity) prepare and send Presolicitation Notice (Construction Contract), SF 1417 (See Exhibit 2-20) to all prospective bidders on the mailing list for

any construction requirement expected to **exceed $100,000**.

FAR 36.302(b)

The type of information to go into the notice includes:

- Description of the proposed work in sufficient detail to disclose the nature and volume of work in terms of physical characteristics and estimated price range (i.e., magnitude of the project).
- Location of the work.
- Tentative dates for issuing invitations, opening of bids, and completing contract performance.
- Where plans will be available for inspection without charge.
- Date by which requests for IFBs should be submitted.
- Notification of recipients that if they do not submit a bid they should advise the issuing office as to whether they want to receive future Presolicitation Notices.
- Statement as to whether award is restricted to small businesses or small disadvantaged businesses.
- Amount to be charged for solicitation documents, if any.

FAR 5.207(g)(1)

The notice must also be publicized in the Commerce Business Daily, using the 17 item format. (Use Code Y for item number 6 of the synopsis.)

☞ **NOTE**: Before issuing the solicitation, you are also required to synopsize the proposed contract on a proposed contract action exceeding $25,000. In addition, contract award must be publicized in the C.B.D.

PRE-SOLICITATION NOTICE (Construction Contract)	1. PROJECT NO.	2. DATE OF NOTICE	3. DATE SOLICITATION DOCUMENTS AVAILABLE	FORM APPROVED OMB NO. 9000-0037

Public reporting burden for this collection of information is estimated to average 10 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition Policy, GSA, Washington, D.C. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0037), Washington, DC 20503.

NOTE: The project number in Items 1 and 16 may be the same as the Invitation or Proposal Number.

4. OFFERS TO BE RECEIVED BY (at place specified for receipt of offers) ▶	A. TIME A.M. P.M.	B. DATE (Month, day, year)	5. TIME FOR COMPLETION (Calendar Days)

6A. ISSUING OFFICE (Name, Address, and ZIP Code) RETURN NOTICE TO THIS ADDRESS		7. PROJECT TITLE AND LOCATION
6B. ROOM NO.	6C. TELEPHONE NO. (Include area code)	

INSTRUCTIONS: a. Solicitation Documents will be issued upon receipt of your affirmative response to this Pre-Solicitation Notice by the DUE DATE set forth in Item 15. b. If a charge is required under Item 8A, your affirmative response must include a check or money order in the applicable amount, made payable to Agency (shown in Item 9). Refund (when specified in Item 88) will be made upon your return of the bid documents in good condition, without marks, notes, or mutilations, within 20 calendar days after the final date for receipt of offers. c. The Issuing Office, at its discretion, may make bid documents available to plan rooms of the Associated General Contractors, Chambers of Commerce, Dodge Reports, and other similar contractors' commercial service facilities. d. Bid guarantee is required with any bid in excess of $25,000. Bid guarantee shall be in the amount of 20 percent of the amount of the bid, or $3,000,000, whichever is less. For bid guarantee purposes, the amount of the bid is the aggregate of the Lump Sum Base Bid, all Alternates (if any), and the product(s) of each unit price (if any), multiplied by the applicable number of units shown on the Bid Form. e. NOTE TO SMALL BUSINESS FIRMS: A program for the purpose of assisting qualified small business concerns in obtaining certain bid, payment, or performance bonds that are otherwise not obtainable is available through the Small Business Administration (SBA). For information concerning SBA's surety bond guarantee assistance, contract your SBA District Office.

8A. CHARGE FOR SOLICITATION DOCUMENTS	8B. IS THIS CHARGE REFUNDABLE? ☐ YES ☐ NO	9. MAKE CHECK PAYABLE TO:	
10. ESTIMATED COST RANGE OF PROJECT		11. OFFERS CONCERNING THE PROJECT RESTRICTED TO SMALL BUSINESS? ☐ YES ☐ NO	12. SUBCONTRACTING PLAN REQUIRED? ☐ YES ☐ NO
A. FROM $	B. TO $		

13. DESCRIPTION OF WORK (Physical characteristics)

(If additional space is needed use reverse.)

IMPORTANT: FAILURE TO COMPLETE AND RETURN THIS PART OF THIS NOTICE TO THE ISSUING OFFICE, ON OR BEFORE THE DUE DATE SHOWN IN ITEM 15 MAY RESULT IN YOUR NAME BEING REMOVED FROM OUR MAILING LIST.

14. ACTION REQUESTED (Check applicable box)			
A. I AM INTERESTED IN BIDDING ON THIS PROJECT AS:		B. I AM INTERESTED IN BIDDING ON THIS PROJECT. RETAIN MY NAME ON YOUR MAILING LIST.	
NO. OF SET(S) YOU REQUIRE OF SOLICITATION DOCUMENTS		C. REMOVE MY NAME FROM YOUR MAILING LIST.	

17. NAME, ADDRESS (City, State, Zip Code) and TELEPHONE NUMBER OF FIRM

18. NAME AND TITLE OF FIRM REPRESENTATIVE	19. SIGNATURE OF REPRESENTATIVE	20. DATE SIGNED

Facsimile

STANDARD FORM 1417 (REV. 8-90)
Prescribed by GSA - FAR (48 CFR) 53.236 - 1(a)

Exhibit 2-20

2.6 Prepare Solicitation

FAR 14.201-1(a)(1)

In supply /service contracts, the Uniform Contract Format is mandated for the preparation of the solicitation. It needn't be used for construction although some agencies do use the UCF format for construction also.

In construction there are various formats used for placement of information, clauses, and provisions based on agency specific guidelines. A widely accepted method of structuring the technical specification is found in the

Construction Specification Institute (CSI) Manual of Practice

which is based upon 16 technical divisions which constitute the makeup of the technical portion of the solicitation. Most agencies have adopted the 16 division concept, but with some tailoring:

GSA has expanded upon Divisions 15 and 16 (electrical and mechancal), as well as accomplishing some other "tailoring" within the divisions. Exhibit 2-21 provides information on how the CSI format was developed.

THE CSI FORMAT

(From the introduction to the Construction Specifications Institute Manual of Practice (CSI):

" In 1948, a group of specification writers organized the Construction Specifications Institute (CSI) for the purpose of ....improving specification practices in the construction and allied industries..." CSI soon developed a standard method for organizing project specifications that became the foundation for what is now a comprehensive construction communications system. In 1961, CSI published "A Tentative Proposal for a Manual of Practice for Specification Writing Methods". This study eventually led to the publication of the first Manual of Practice in 1967".

In 1963, CSI developed the sixteen division format which organized specifications into generically related groupings. This was closely followed by the organization of sections within divisions into a three-part format and a recommended page format. Thus standards of practice, from the Project Manual to individual pages, have been established for the guidance of today's practicing specifier."

Copies of the "Manual of Practice" may be purchased from CSI at the following address:

Attn: Order Desk
The Construction Specifications Institute
601 Madison Street
Alexandria, Va. 22314-1791

Exhibit 2-21

FAR 36.701(b)

Construction uses **SF 1442** for the solicitation, offer, and award of all contracts. Exhibit 2-22 illustrates the two page form with an OF 336, Continuation Sheet.

SOLICITATION, OFFER AND AWARD *(Construction, Alteration, or Repair)*	1. SOLICITATION NO.	2. TYPE OF SOLICITATION ☐ ☐	3. DATE ISSUED	PAGE OF PAGES

4. CONTRACT NO.	5. REQUISITION/PURCHASE REQUEST NO.	6. PROJECT NO.
7. ISSUED BY CODE		8. ADDRESS OFFER TO

9. FOR INFORMATION CALL ▶	A. NAME	B. TELEPHONE NO. (Include area code) (*NO COLLECT CALLS*)

SOLICITATION

NOTE: In sealed bid solicitations, "offer" and "offeror" mean "bid" and "bidder".

10. THE GOVERNMENT REQUIRES PERFORMANCE OF THE WORK DESCRIBED IN THESE DOCUMENTS (Title, Identifying no., date):

11. The Contractor shall begin performance within ____ calendar days and complete it within _____ calendar days after receiving

☐ award, ☐ notice to proceed. This performance period is ☐ mandatory, ☐ negotiable. *(See _____)*

12A. THE CONTRACTOR MUST FURNISH ANY REQUIRED PERFORMANCE AND PAYMENT BONDS? (If "YES", indicate within how many calendar days after award in Item 12B.) ☐ YES ☐ NO	12B. CALENDAR DAYS

13. ADDITIONAL SOLICITATION REQUIREMENTS:

A. Sealed offers in original and ____ copies to perform the work required are due at the place specified in Item 8 by _____ (hour) local time _____ (date). If this is sealed bid solicitation, offers must be publicly opened at that time. Sealed envelopes containing offers shall be marked to show the offeror's name and address, the solicitation number, and the date and time offers are due.

B. An offer guarantee ☐ is, ☐ is not required.

C. All offers are subject to the (1) work requirements, and (2) other provisions and clauses incorporated into the solicitation in full text or by reference.

D. Offers providing less than _____ calendar days for Government acceptance after the date offers are due will not be considered and will be rejected.

STANDARD FORM 1442 FRONT FACSIMILE

Exhibit 2-22

OFFER *(Must be fully completed by offeror)*

14. NAME AND ADDRESS OF OFFEROR *(Include ZIP Code)*

CODE FACILITY CODE

15. TELEPHONE NO. *(Include area code)*

16. REMITTANCE ADDRESS *(Include only if different than Item 14)*

17. The offeror agrees to perform the work required at the prices specified below in strict accordance with the terms of this solicitation. If this offer is accepted by the Government in writing within _____ calendar days after the date offers are due. *(Insert any number equal to or greater than the minimum requirement stated in Item 13D. Failure to insert any number means the offeror accepts the minimum in Item 13D.)*

AMOUNTS ▶

18. The offeror agrees to furnish any required performance and payment bonds.

19. ACKNOWLEDGMENT OF AMENDMENTS
(The offeror acknowledges receipt of amendments to the solicitation - give number and date of each.)

AMENDMENT NO.										
DATE										

20A. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN OFFER

20B. SIGNATURE

20C. OFFER DATE

AWARD *(To be completed by Government)*

21. ITEMS ACCEPTED

22. AMOUNT

23. ACCOUNTING AND APPROPRIATION DATA

24. SUBMIT INVOICES TO ADDRESS SHOWN IN *(4 copies unless otherwise indicated)*

ITEM

25. OTHER THAN FULL AND OPEN COMPETITION PURSUANT TO

☐ 10 U.S.C. 2304(C) ( ) ☐ 41 U.S.C. 253(C)

26. ADMINISTERED BY CODE

27. PAYMENT WILL BE MADE BY

CONTRACTING OFFICER WILL COMPLETE ITEM 28 OR 29 AS APPLICABLE

28. NEGOTIATED AGREEMENT *(Contractor is required to sign the document and return ____ copies to issuing office.)* Contractor agrees to furnish and deliver all items or perform all work requisitions identified on this form and continuation sheets for the consideration stated in this contract. The rights and obligations of the parties in this contract shall be governed by (a) this contract award. (b) the solicitor, and (c) the clauses, representations, certifications and specifications incorporated by reference in or attached to this contract.

29. AWARD *(Contractor is not required to sign this document.)* Your offer on this solicitation is hereby accepted as to the items listed. This award consummates the contract, which consists of (a) the Government solicitation and your offer, and (b) this contract award. No further contractual documentation is necessary.

30A. NAME AND TITLE OF CONTRACTOR OR PERSON AUTHORIZED TO SIGN *(Type or print)*

31A. NAME OF CONTRACTING OFFICER *(Type or print)*

30B. SIGNATURE **30C. DATE**

31C. UNITED STATES OF AMERICA **11C. AWARD DATE**

BY

STANDARD FORM 1442 BACK (REV.4-85) FACSIMILE

Exhibit 2-22 (cont.)

CONTINUATION SHEET	REFERENCE NO. OF DOCUMENT BEING CONTINUED	PAGE

NAME OF OFFEROR OR CONTRACTOR

ITEM NO	SUPPLIES/SERVICES	QUANTITY	UNIT	UNIT PRICE	AMOUNT

Facsimile

OPTIONAL FORM 336 (4-86)
Sponsored by GSA

Exhibit 2-22 (cont.)

INSTRUCTIONS FOR COMPLETING SOLICITATION PART OF SF 1442

Block #1: Enter solicitation number , using a "B" to indicate Sealed Bidding and "R" to indicate Request for Proposal. The "B" or "R" will convert to a "C" at the time of award.

Block #2: Check the type of solicitation (Sealed Bid, or Negotiation.

Block #3: Enter the date that the solicitation is issued. (This date should be at least 15 days from date that the synopsis is published, plus a minimum of 30 days prior to bid opening date).

Number the SF 1442 page 1, and follow it by the number of pages in the solicitation.

Block #4: Enter the number of the solicitation.

Block #5: Insert the Requisition Number (if applicable).

Block #6: Insert Project Number.

Block #7: Insert the name and address of the procuring activity.

Block #8: Insert address where bids are to be mailed if different from # 7. Otherwise insert "Same."

Block #9A: Insert the name of the Contract Specialist who is responsible for the solicitation.

Block #9B: Enter the telephone number of the Contract Specialist named in Block 9A.

Block #10: This block is a "catch all" for information that your agency deems essential. Typically such information as the following is entered here:

- Title of the project
- Magnitude of the project.
- If the solicitation is to be issued as an unrestricted procurement, insert the following statement: "THIS SOLICITATION IS ISSUED AS AN UNRESTRICTED PROCUREMENT. LARGE BUSINESSES MAY BE REQUIRED TO SUBMIT A SUBCONTRACTING PLAN PRIOR TO AWARD OF ANY CONTRACT."
- Drawings are identified in Section 01011 Division 1 of the Specification.
- Statement as to any Set Aside applicable.
- Wage Determination Division, DOL No. _____, dated _____.
- Site visit information.
- Statement prohibiting foreign products and construction materials to be furnished.

Block #11: First, fill in the blank as to the number of calendar days in which the contractor is to commence work. (Usually 15 days unless there are extenuating circumstances) Then insert the number of calendar days which is found in the " COMMENCEMENT, PROSECUTION, AND COMPLETION OF WORK" Clause in the specification, Additional General Paragraphs, Section 01011. (cont. on next page)

Check the appropriate blocks in the rest of the sentence regarding whether the dates specified are based on the Notice of Award or Notice to Proceed. The performance period is mandatory on sealed bidding, but can be negotiable in a negotiated procurement. Check the applicable block.

Block #12A: Check the appropriate block pertaining to the bond requirement.

Block #12B: Specify # of days that the contractor has to submit performance/payment bonds.

Block #13: The additional solicitation requirements are annotated here.

- Specify number of copies to be returned by bidder and time, and date of bid opening.
- Check appropriate block concerning whether a bid guarantee is required, and in what amount.
- No further information required.
- Specify the minimum number of days the Government requires for acceptance.

Block #17: If the solicitation is for a base bid only, insert the following:

Base Bid Item 0001 $_____

The total price shall be a lump sum price for the entire work of the project in accordance with the contract documents.

If the solicitation includes additive bid items, the following:

Base Bid Item 0001 $_____
Additive Bid Item 0001AA $_____
Additive Bid Item 0002AB $_____, etc.

If the solicitation is for a Base Bid Item that requires unit pricing, use the SF 36 Continuation Sheet as Page 2a of 3 and insert the item description of the Base Bid item under Item 0001. Then insert the description of the item requiring unit pricing. (i.e., remove roof sheathing). Insert the estimated quantity of the item requiring unit pricing and the unit of issue. (i.e., 1000 SF).

(**NOTE:** When using unit pricing be sure to put the bidder on notice that the Clause "Variation in Estimated Quantity" is applicable and insert the plus or minus variance percentage in the space provided at the end of the description of the FAR clause).

Continuation Sheet (Optional Form 336)

1. GENERAL INTENTION: It is the declared and acknowledged intention and meaning to provide, complete and ready for use (Insert very brief description)

_____

2. GENERAL DESCRIPTION: The work includes

_____

and all incidental related work.

3. LOCATION: The work shall be located at

_____

Exhibit 2-23 lists some CSI terms and definitions.

CSI TERMS AND DEFINITIONS

Division: One of 16 broad groupings of the requirements of a construction contract, breaking the work out into technical categories (i. e., Division 8 describes Doors and Windows). The 16 divisions in aggregate, constitute the technical specification for the project.

Division 1: The first of the 16 divisions, is entitled "General Requirements." Administrative requirements for the project are located in this division.

Section: The location of the specified requirements for a specific portion of the work of a construction project, is designated with a 5-digit number, the first two of which is the applicable division (i.e., Section 08200, "Wood Doors"). The "08" indicates Division 8, and the "2" indicates it is Section 2 of Division 8). The sections are the various guide specifications that when combined makeup the Divisions.

Division "0": The location of the Bidding Requirements: these elements are not actually referred to as a Division since they are not a part of the technical specification, but they are given a 5-digit number and title. (i.e., The number 01010 indicates that this part concerns bidding requirements (General Requirements) 01011, Conditional General Paragraphs, etc.)

Exhibit 2-23

While there may be agency variations as to the organization and contents of the solicitation, the guidance provided in Exhibit 2-24 regarding

- general contents
- responsibility,
- forms, and
- action required

provides you with an understanding of the types of documents required, permitting you to assemble a construction solicitation regardless of agency format.

☞ **NOTE:** The format presented in Exhibit 2-24 is based on the CSI format.

THE BASIC CONSTRUCTION FORMAT

Organization of Solicitation Material
(The organization of material is agency specific. Therefore you may experience some variation to the CSI arrangement used here.) However, the solicitation has three basic categories as shown below:

PRE-BIDDING DOCUMENTS (Provisions)	• Cover Sheet (agency specific) • Table of Contents (agency specific) • Solicitation, Offer and Award - Standard Form 1442 • Bidding Schedule • Continuation Sheet • Representations and Certifications • Forms used are inserted (Bid Bond forms and SF 1442) • Instructions and Information to Bidders (agency specific)
POST-BIDDING INFORMATION (Clauses)	• Contract Clauses with FAR references • Labor Standard Clauses • Labor Rates (Some Agencies attach the wage rates at the very end of the technical specification.) • Index • Special Clauses
TECHNICAL INFORMATION	• Technical Specifications (the 16 Divisions) • Drawings (Attachments)

Cover Sheet:

The cover sheet may be used to include the solicitation number, the project identification number and location, the issuing agency, and notes regarding the Equal Opportunity requirements and Certification of Nonsegregated Facilities requirements.

Responsibility	Form	Action
Contract Specialist	Procuring Activity local form.	Prepare contents.

Table of Contents:

The table of contents (whose form is agency specific) identifies the documents included in the solicitation and the number of pages for each document.

Responsibility	Form	Action
Drafter of Specification	Procuring Activity form.	Prepare contents.

Exhibit 2-24

THE BASIC CONSTRUCTION FORMAT

Solicitation, Offer and Award (SF 1442):

The FAR required form contains standard information; e.g., number, date, name and location of the project, the issuing agency and office, date and time for bid submission, period of performance, identification of documents describing the work, information regarding bond requirements, identification of restrictions to bidding (i.e. set aside), a statement of the requirement for Subcontracting Plan (if applicable), Site Visit information, and general information to enable a prospective bidder to determine interest in bidding.

The reverse of the form provides specific information concerning the offerer, i.e. name, address, telephone number. A space to enter the bidder's acceptance period and the bid price is provided, as well as an acknowledgement of any amendments issued. If more than one bid item is needed, the continuation sheet may be used.

The third part of the form provides award information and places for contract signatures to be affixed.

Responsibility	Form	Action
Contract Specialist	SF 1442 of the Solicitation.	Prepare contents Materials
Contractor	SF 1442	Prepare contents on the offer portion.
Combination Contracting Officer/Contractor	SF 1442	Award portion signature and date.

Bidding Schedule:

If other than the SF 1442 is issued (continuation sheet), the bidding schedule may include different columns for Item Number, Description, Estimated Quantities, Unit, Unit Prices, if any, and Amount. Most construction schedules will be Lump Sum. (Item numbers are used in additive bid/alternate bid items)

Responsibility	Form	Action
Contract Specialist	SF 1442 Continuation Sheet (if needed).	Prepare schedule for fill in of prices.
Contractor	SF 1442 Continuation Sheet (if needed).	Enters prices.

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Contract Clauses:

The contract clause section includes the clauses required by regulations (Primarily the FAR). Some of these clauses are incorporated by reference and some are included in full text in accordance with agency and FAR procedures. A copy of referenced contract clauses applicable to construction under sealed bidding procedures may be found in the Classroom Exercise Book under CE-2.6.

Responsibility	Form	Action
Contract Specialist	Usually pre-printed boilerplate	Prepares applicable clauses to be referenced, as well as those in full text

Labor Standard Clauses:

The labor section includes special requirements (See FAR 22.407) regarding labor; i.e. Davis-Bacon Act, Contract Work Hours and Safety Standards Act - Overtime Compensation, Apprentices and Trainees, Payrolls and Basic Records, Compliance with the Copeland Act Requirements, Withholding of Funds, Subcontracts, Contract Termination - Debarment, Disputes Concerning Labor Standards and Compliance with Davis-Bacon and Related Act requirements. They may be referenced. The Labor standard clauses are provided in full text in your Classroom Exercise book, CE-2.6.

Responsibility	Form	Action
Contract Specialist	Full text or referenced.	To provide the labor standard clauses in full text or by reference.

Labor Rates:

The Davis-Bacon labor rate section identifies the basic hourly rates and fringe benefits for the different categories of labor required. (This is sometimes located at the end of the solicitation.) A sample of a wage rate issued for a construction project can be found in the Classroom Exercise Book, CE-2.6.

Responsibility	Form	Action
Contract Specialist	Reproduced from Federal Register	To identify the appropriate wage rate

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Representations and Certifications:

Representations and Certifications deal with responsiveness of the bidder. They are both FAR and agency specific.

In this section, the bidder provides information by means of checking boxes or filling in information in such areas as the following: (Examples of the language contained in these certifications may be found in your Classroom Exercise Book, CE-2.6.)

		FAR Reference
*	Certificate of Independent Price Determination	52.203-2
*	Contingent Fee Representation and Agreement	52.203-4
*	Type of Business Organization - Sealed Bidding	52.214-2
*	Parent Company and Identifying Data	
*	Employer's Identification Number	
*	Small Business Concern Representation	52.219-1
*	Small Disadvantaged Business Concern Representation	52.219-2
*	Women-Owned Small Business Representation	52.219-3
*	Certification of Nonsegregated Facilities	52.222-21
*	Previous Contracts and Compliance Reports	52.222-22
*	Clean Air and Water Certification	52.223-1
*	Certification of Eligibility	52.222-15
*	Buy American Act - Construction Materials	52.225-5
*	Certification Regarding a Drug Free Work Place	52.223-5
*	Requirement for Certificate of Procurement Integrity	52.203-8
*	Certification and Disclosure Regarding Payments to Influence Certain Federal Transactions	52.203-11
*	Taxpayer Identification	52.204-3
*	Place of Performance - Sealed Bidding	52.214-14
*	Small Business Concern Representation for the Small Business Competitiveness Demonstration Program	52.219-19
*	Notice of Req. for Affirmative Action to Ensure EEO	52.222-23
*	Recovered Material Certification	52.223-4

Responsibility	Form	Action
Contracting Specialist	Full Text No Form No.	To identify the certifications and provide them in full text
Contractor	Contractor	Execute fill ins.

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Instructions and Information to Bidders:

In this section, the Government may provide instructions and information to bidders in such areas as the following: Some have FAR references, most are agency specific.

	FAR Citation
* Availability of Bids	
* Solicitation Definitions - Sealed Bidding	
* Public Opening of Bids	
* Amendments to Invitations for Bids	52.214-3
* False Statement in Bids	52.214-4
* Submission of Bids	52.214-5
* Explanation to Prospective Bidders	52.214-6
* Late Submissions, Modifications, and Withdrawals of Bids	52.214-7
* Preparation of Bids - Construction	52.214-18
* Preparation of Offers - Construction	52.215-38
* Contract Award - Sealed Bidding - Construction	52.214-19
* Contract Award, Alternate 1	15.407(d)(4)(ii)
* Notice of Requirement for Affirmative Action to Ensure EEO	
* Withdrawal of Bids	
* Arithmetic Discrepancies	
* Service of Protest	52.233-2
* Bid Guarantee	28.101-3(b)
* Performance and Payment Bonds Requirement	
* Forms Information	
* Payment for Drawings and Specifications (If applicable)	
* Safety Requirements	
* Quality Control (CQC)	
* Plant and Equipment	
* Pre-award Information/Prospective Contractor Responsibility	
* Site Visit - Conditions Affecting the Work	
* Site Visit Information: Point of Contact	
* Inquiries - Explanation to Prospective Bidders	
* Subcontracting Plan Requirement	52.219-9
* Small Business Size Standard Applicable	52.228-11
* Pledge of Assets	
* Royalty Information, Alternate 1	52.227-6
* Protests	52.233-2

Responsibility	Form	Action
Contract Specialist	Full Text	Provides all appropriate clauses

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Index:

The index is for the Specifications Section, by Division and Section numbers. The appropriate paragraph numbers, paragraph title and page number are listed.

Special Clauses:

These are clauses pertaining to the specified requirements of the construction project.
The following list is illustrative as to what type of information you might find in this Section.

* General Description of the Project
* Location of the Project
* Required Insurance Amounts
* Schedule of Prices Requirement
* Contractor's Invoice and Contract Performance Statement
* As Built Record of Materials Used in Buildings
* Contractor's Daily Report
* Equitable Adjustments
* Government Representatives
* Oral Modifications
* No Waiver By The Government
* Payments to The Contractor
* Contractor Quality Control
* Local Regulations at The Construction Site
* Order of Work to Be Performed
* Work Outside of Regular Hours
* Existing Work
* Sanitation Requirements
* Security Requirements (FAR 52.204-2 Alternate II)
* Applicable Publications
  - Military Standards
  - Military Specifications
* Project Information
  - Contract Drawings, Maps and Specifications
  - Reference Drawing(s) Accompanying Specification
  - Boring Logs
  - Subsurface Data
  - Applicable Construction Categories to The Project
  - Nondomestic Construction Materials
* Information to Be Furnished By The Contractor
  - Schedule of Prices
  - Names of Subcontractors and Personnel
  - Schedule and Equipment Delivery Schedule
  - Information Required by Other Additional General Paragraphs
  - Technical Publications

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Special Clauses (Continued)

* Project Schedule, Phasing, and Listed Time Constraints
  - Commencement, Prosecution, and Completion of Work (FAR 52.212-3)
  - Liquidated Damages for Construction (FAR 52.212-5)
  - Payment for Materials Stored Off Site
* Division of Work
  - Identity of Government Furnished Material and Equipment
  - Government-Installed Work, If Any
  - Percentage of Work to Be Performed By The Prime Contractor
  - Limited Assumption of Risk by The Government
* Facilities and Services
  - Availability of Utilities Services
  - Identification of Contractor's Storage Area(s)
  - Government Construction Representative's Office
  - Contractor Quality Control Records and Field Office
  - Requirements For The Project Sign to be Erected at The Site
* Restrictions of Operations
  - Interrupting Utility Services
  - Coordination With Other Work
  - Extraordinary Security Requirements
  - Restrictions to Ensure Safety
  - Identification of Hazards
  - Access of Vehicles and Parking
  - Cleanup Requirements
* Actions Required of the Contractor
  - Materials and Equipment to Be Salvaged
  - Location of Underground Facilities
  - Permits Required
  - Storm Protection
  - Identification of Asbestos
* Records Required of the Contractor
  - As-Built Records
  - Quantity Surveys (FAR 52.236-16)

Responsibility	Form	Action
Contract Specialist	Full Text	Provides all appro-priate clauses

Technical Specifications:

The specifications section is the heart of the contract. It typically includes the "standard" sixteen divisions which follow:

Exhibit 2-24 (Continued)

THE BASIC CONSTRUCTION FORMAT

Technical Specification (Continued)

*	1	General Requirements
*	2	Sitework
*	3	Concrete
*	4	Masonry
*	5	Metals
*	6	Wood and Plastics
*	7	Thermal and Moisture Protection
*	8	Doors and Windows
*	9	Finishes
*	10	Specialties
*	11	Equipment
*	12	Furnishings
*	13	Special Construction
*	14	Conveying System
*	15	Mechanical
*	16	Electrical

Responsibility	Form	Action
Contract Specialist	Specification & Drawings	Review specification for errors, ambiguous statements, proprietary restrictions, etc . Review the drawings to identify contractual information.

NOTE: Of particular importance regarding the General Requirements Division (Division 1), is that it includes many special contract clauses or provisions that are over and above those in the Contract Clauses section. These clauses vary depending upon the specific facts and circumstances of the project; whereas, those in the Contract Clauses section have general application.

Exhibit 2-24 (Continued)

Selecting Clauses and Provisions

To ensure that all of the required and desired clauses and provisions are included in the solicitation, you need to use the

FAR Provision and Clause Matrix and

Agency Supplement.

Exhibit 2-25 is a copy of the first page of the FAR Matrix which shows the two columns entitled "FP CON" and "CR CON" which are used for construction.

Exhibit 2-25

52.301 Solicitation Provisions and Contract Clause (Matrix)

Key

P or C = Provision or Clause
IBR = Is Incorporation by Reference authorized?
UCF = Uniform Contract Format Section, when applicable

R = Required
A = Required - When Applicable
O = Optional

✔ = Revision

Principle type and/or purpose of contract:

FP SUP = Fixed-Price Supply
CR SUP = Cost-Reimbursement Supply
FP R&D = Fixed-Price Research & Development
CR R&D = Cost-Reimbursement Research & Development
FP SVC = Fixed-Price Service
CR SVC = Cost Reimbursement Service
FP CON = Fixed-Price Construction
CR CON = Cost Reimbursement Construction
T & M LH = Time & Material/Labor Hours
LMV = Leasing of Motor Vehicles
COM SVC = Communication Services
DDR = Dismantling, Demolition, or Removal of Improvements
A-E = Architect-Engineering
FAC = Facilities
IND DEL = Indefinite Deliver
TRN = Transportation
SP = Small Purchase
UTL SVC = Utility Services

					Principle Type and/or Purpose of Contract																	
Provision or Clause	Prescribed In	P or C	IBR	UCF	FP SUP	CR SUP	FP R&D	CR R&D	FP SVC	CR SVC	FP CON	CR CON	T&M LH	LMV	COM SVC	DDR	A-E	FAC	IND DEL	TRN	SP	UTL SVC
52.202-1 Definitions	2.201	C	Yes	I	R	R	A	R	R	R		R	R	R	R		R	R	R	R		R
Alternate I	2.201	C	Yes	I							R					R	R					
52.203-1 Officials Not to Benefit	3.102-2	C	Yes	I	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
52.203-1 Certificate of Independent Price Determination	3.103-1	P	No	K	A		A		A		A			A	A	A	A	A	A	A		✔ A
52.203-3 Gratuities	3.202	C	Yes	I	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
52.203-4 Contingent Fee Representation and Agreement	3.404(b)	P	No	K	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	✔	A
52.203-5 Covenant Against ContingentFees	3.404(c)	C	Yes	I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
52.203-6 Restrictions on Subcon-tractor Sales to the Government	3.503-2	C	Yes	I	R	R			R	R									R		R	R
52.203-7 Anti-Kickback Procedures	3.502-3	C	Yes	I	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R	R
52.203-8 Requirement for Certificate of Procurement Integrity	3.104-10(a)	P	No	K	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		A
✔ Alternate I	3.104-10(a)	P	No	K	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A
52.203-9 Requirement for Certificate of Procurement Integrity - Modification	3.104-10(b)	C	No	I	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A	A		A

FAR 14.202-6

In addition, you must consult your **FAR Supplement or agency clause manual** in order to determine which agency and local solicitation provisions and contract clauses are to be included.

Before reproducing the completed solicitation package for distribution, you should submit it to the Contracting Officer, who ultimately is responsible for the final review and approval. You may also need to obtain:

- legal
- requiring activity
- technical
- management

concurrence. Concurrence requirements vary from agency to agency and may take effect at various dollar thresholds.

USING THE TEXT AS A REFERENCE

Again returning to the scenario and going over the list of things that must be accomplished in reviewing the specifications and drawings, Joyce decided that it would be good training experience to provide Sondra some time on her own to actually accomplish all of the tasks. The procedures that have just been explained in the text and in the classroom were provided. Sondra learned by following the guidance in the text and by doing, just as you have been doing in completing the class exercises. Knowing what you are looking for, and where to find the information is the key to performing a quality review in a timely manner.

Now that you are familiar with the CSI format, putting the solicitation together is the easy part. One merely has to follow the outline. After submitting it to the Contracting Officer for approval, you are now ready to proceed with issuing the solicitation.

2.7 Determine the Extent of Marketing

Marketing is a meaningful presolicitation contact with the private sector and others to influence the development of a competitive solicitation package.

In addition to the mandatory requirement for synopsizing in the CBD, there are several other methods used for publicizing proposed contract actions in construction. When considering whether or not to use other methods of publicizing, you will want to assess such factors as the:

- **Presolicitation Notice** list of responses;
- **Competition**-extent to which you may need to publicize in order to increase;
- **Dollar value** of the contract action;
- **Location** of the project. Is it in a remote area? Are the necessary trades available to provide labor?

FAR 36.211

- Availability of organization that maintains **display areas** for specifications and drawings; and
- **Other Agency Bid Openings.**

Also, see Exhibit 2-26 which lists other methods of publicizing.

OTHER METHODS OF PUBLICIZING CONSTRUCTION CONTRACTS

FAR 5.101(b)

* Display of the solicitation, such as a bulletin board, located in a public place at the contracts office. This requirement is mandatory for contract actions between $10,000 and $25,000. Construction contractors who attend bid openings are afforded an opportunity to obtain information on future projects. All bulletin board displays are important in construction bids because of the number of subcontractors which serve the prime. It is often impossible for the subcontractors to determine what disciplines are needed without requesting copies of the specification and drawings. Bulletin boards afford easy access to this information.

* Providing local trade union halls a copy of the solicitation for display purposes. This provides a good source of advertising, as many of them will notify their members of the requirement by means of local newsletters and bulletins.

* Providing the local Small Administration Office copies of all solicitations. May attract interest of 8(a) or small businesses.

* By making brief announcements of proposed construction projects to local newspapers, trade journals, trade magazines, or other communications media for publication without cost to the Government.

* By participation in trade fairs pertaining to construction (i.e. equipment). The Small Business Administration frequently holds seminars for small business construction contractors. This is a good way to contact prospective bidders.

* Using means of paid advertising of proposed construction projects in newspapers and local media. This requires approval in accordance with agency procedures.

* By unsolicited announcements in the Dodge Report. The Dodge Report is an excellent source with nationwide coverage.

* Since the objective is to “spread the word” about the project at hand so that maximum competition is achieved, you may want to consider telephone solicitation of local trade unions, requesting that they notify all of their members about your project. This is especially effective when hard to find specialty construction disciplines are needed to perform on the project.

Exhibit 2-26

2.8 Issue the Solicitation

There are a number of tasks and some decisions you must make which are associated with issuing the solicitation. Exhibit 2-27 lists some of them.

ISSUING THE SOLICITATION: TASKS

- Preparation and maintenance of a Construction Bidder's Mailing List.
- Preparation for record keeping if charging for bid sets.
- Identifying logistics considerations (UPS, Freight, Postal), obtaining mailing tubes for drawings.
- Posting the solicitation on bulletin boards.
- Perform any other agency requirements or procedures.

Exhibit 2-27

Mailing List

FAR 14.205-1

For construction solicitations, it is standard practice that the mailing lists be maintained in such manner that it distinguishes the general contractor (prime) from other disciplines (subcontractors).

Bidders often request copies of **"subcontractor plan holder lists"** that show a breakout of prospective subcontractors and prime contractors. This enables a prospective subcontractor, who may be first, second or third tier, to contact a prospective prime or other prospective subcontractors on a higher tier in order to market their services. It also provides the prime contractor with a source list.

It is essential for you to update the mailing list on a daily basis once the solicitation has been issued. Accurate information concerning who has been furnished plans and specifications must be available on a moments notice.

The bidder's mailing list should also indicate whether a prospective contractor is a

- large or small business,
- disadvantaged,
- women owned,
- emerging small business, or
- competitive 8(a) contractor.

Because it provides a documented record of available competition, it will also serve as a valuable source of information on future solicitations.

FAR 14.205-5(b)

In construction contracting, trade journals, prospective subcontractors, material suppliers, and others having a bona fide interest, will be supplied upon request, a list of all prospective bidders that have furnished copies of the plans and specifications.

Charging for Plans and Specifications

Some agencies charge for issuing **plans and specifications** because of:

1. Cost of providing the volume of material constituting a "bid package" in a construction solicitation, and
2. Administrative burden attached to preparation and mailing.

If levied, the charges will constitute

> "only those costs to the Government attributed to the administrative burden of reproducing and mailing the documents."

As in any other transaction involving money, careful record keeping is required. As a minimum, documentation should include, but not necessarily be limited to:

- Name, date and time of the bidder's request.
- Record of amount paid and method.
- Date and time of mailing plans and specifications.
- Daily receipt of deposit with the Comptroller.
- Compliance with all other accounting procedures established by agency or procuring activity.

Agency procedures determine whether one set or more of full size **drawings** are provided to bidders.

1. Full size drawings are sometimes reserved for larger more complex procurements.
2. Reduced size drawings are provided for smaller projects.
3. Special arrangements may be necessary to accommodate larger drawings. (Check with your Project Manager or the engineer in charge of the project.)

Cost is usually the overriding consideration in the decision.

Number of Bid Sets

It is expensive to reproduce drawings, as well as to reproduce the large volume of paperwork which constitutes a construction bid package. Determining the number of copies that will be needed will take some thought and planning on your part. To help you in making a decision you should consider the factors listed in Exhibit 2-28.

GETTING THE JOB DONE

As Sondra compiled the bidder's mailing list, annotating whether the prospective bidders were large or small businesses, disadvantaged, women owned, 8(a), "emerging", and whether they should be listed as "prime" or subcontractors, as well as their specialty, she found herself feeling rather pleased that she had managed this part of the contract phase rather well. The Contracting Officer had said so. She was also complemented on her marketing tactics. She had made numerous phone calls to the local construction professional organizations and union halls to promote the project, and was well received.

FACTORS FOR DETERMINING NUMBER OF BID SETS

- Historical data may provide a clue concerning the response based on similar projects performed in the same area.
- The number of responses received as a result the Presolicitation Notice.
- Remember that the dollar value of the project is not always an accurate measurement (i.e. a dredging contract with an estimated cost of several million dollars will not result in issuing more than a handful of bid sets). Dredging is a highly specialized field with a limited number of contractors available to respond.
- The geographical location of the project. It could be located in a remote area where there are a limited number of local contractors who would be likely to respond.
- The extent to which you are marketing the project.
- Time allowed for submission of bids.
- Set-asides for small business, emerging small business, 8(a) competitive, or a small disadvantaged business will have an impact on the number of copies needed. An unrestricted bid will usually generate a greater demand.
- Whether there is a charge for the bid sets. (A charge will most likely eliminate all but the serious minded in bidding.)
- The number of copies to be mailed to each bidder.
  (Normally an original and l or 2 copies of the bid, with one complete set of drawings).
- Projects with a large number of diversified subcontracting opportunities will usually result in a larger number of requests. Subcontractors, when reading the CBD, cannot always determine if their trade is involved and may request a copy of the bid set in order to examine it for possible opportunities.
- The number needed for internal use, file copies, and award distribution.
- You should also maintain a reasonable number of copies on hand so that all of your needs will be filled, as well as providing for a number of additional requests on a "first come-first-served" basis.

Exhibit 2-28

2.9 Amend/Cancel the Solicitation

Exhibit 2-29 represents some typical problems related to construction contracting which may be brought to your attention by a potential bidder and require amending / cancelling a solicitation.

TYPICAL PROBLEMS LEADING TO AMENDMENT / CANCELLATION

- Incomplete, inaccurate, or missing drawings.
- Missing or inaccurate terms and conditions.
- Vague or ambiguous specification.
- Part(s) of the specification written around a proprietary item.
- Bidder seeking clarification on a technical aspect of the solicitation, resulting in changes.
- An amendment issued by the Department of Labor changing wage rates which is received after issuing the solicitation, but prior to bid opening.
- Questions generated during the site visit which must be answered.
- Questions and answers generated at any pre-bid conference held must be provided in writing to all prospective bidders by issuing an amendment.
- Need to postpone bid opening for the convenience of the Government.

Exhibit 2-29

If you issue an amendment for clarification or a change to the specification, you must be sure that an amendment to the official Government cost estimate is obtained from the A/E reflecting the changes, additions, or deletions being incorporated in the amendment.

If a wage rate change occurs after the solicitation has been issued but before the bid opening date, the Contracting Officer must make a decision whether to amend the solicitation to include the new rates. The decision is based on the criteria illustrated in Exhibit 2-30.

MODIFICATION OF WAGE DETERMINATIONS

FAR 22.404-6

The need for inclusion of a **modification** of a DOL general wage determination in a solicitation is determined by the publication date of the notice in the Federal Register, or by the time of receipt of the modification by the contracting agency, whichever occurs first.

The following applies to sealed bidding:

1. A written action modifying a wage determination shall be effective if:

   (i) It is received by the contracting agency, or notice of the modification is published in the Federal Register, 10 or more calendar days before the date of bid opening, or

   (ii) It is received by the contracting agency, or is published in the Federal Register, less than 10 calendar days before the date of bid opening, unless the Contracting Officer finds that there is not reasonable time available before bid opening to notify the prospective bidders. (If the Contracting Officer does so, there must be a written report of the finding placed in the contract file)

2. If an effective modification is received by the Contracting Officer before bid opening, the Contracting Officer shall postpone the bid opening, if necessary, to allow a reasonable time to amend the solicitation to incorporate the modification and permit bidders to amend their bids. If the modification does not change the wage rates and would not warrant amended bids, the Contracting Officer shall amend the solicitation to include only the number and date of the modification.

Exhibit 2-30

ALWAYS A CATCH

After checking with Sondra, Joyce jotted down a status report concerning the CTC project and left it on Bill's desk. "The CTC solicitation bid is due to be opened within 10 days." Everything was going smoothly until a wage determination change arrived. Sondra is pondering whether an amendment is required and if the bid opening must be postponed.

CHAPTER 3

BID EVALUATION AND AWARD

BID OPENING JITTERS

The hour approaches for the receipt of bids on a construction project. Your name is Sondra and you are very nervous as the bid opening time approaches. This is your first experience at opening bids. There is a very large construction project which is obtaining a lot of attention known as the Contracts Training Center (CTC) project. This project is in conjunction with it and demands the same urgency.

The bid is structured to allow for additive/alternate bid items which is also new to you. The deadline is fast approaching. You glance out in the hallway to see how many contractors are present and you are surprised to see several of them still on the pay phones, obviously obtaining last minute quotations. Some are standing around nervously glancing at their watches.

The hour has finally arrived. You follow the established procedures for bid openings and breathe a sigh of relief that there were no late hand carried bids. It is now time to read the bids. You fumble at opening the first one, and just as you are about to read the prices on the additive bid items you suddenly remember that a funding limitation amount (control amount) was not in the bid box with the other bids, and had not been previously submitted. What should you do? You secretly wish that Joyce, your supervisor were here to handle this. You make a decision to continue to open and read the bids.

Later, while bidders are examining the bid documents your mind wanders back to the additive bid item problem. You hope your decision was correct in continuing to open bids without a funding limitation amount. You also wonder what the procedure involves in determining the low bidder on this type bid structure. Fortunately the bidders present did not inquire about the missing dollar figure.

However, the bidders did complain because you failed to read the information concerning bonds at bid opening. You notice that there is a place on the abstract form to record bond information. Perhaps you should have read them but it takes too much time. Why are bidders concerned about the bonding information anyway?

Later, back at her desk Sondra glanced down at the abstract and immediately concluded that the low bidder was so low that she was certain that a mistake had been made. This is in spite of the fact that the bidder had spoken to her after bids were read and verbally confirmed the bid price.

Does the Contracting Officer award a contract to a firm when it is known that the bidder would be performing at below cost?

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to:

Overall: Resolve discrepancies and mistakes in bids, make responsiveness/responsibility determinations, approve performance and payment bonds, and award a contract.

Individual:

3.1 Describe procedures to follow in opening bids on a construction project.

- All bids are recorded on abstract SF 1419.
- The bid guarantee underwriter is identified and the amount is read and recorded.
- The independent Government estimate is read and recorded.
- A control amount is read and recorded, if applicable.

3.2 Determine the responsiveness of bidder(s).

- Verify that bids are materially balanced on a solicitation containing multiple line items.
- Evaluate supportive evidence for alleged mistake in bid, request for withdrawal, or request for correction.
- Determine responsiveness of bid guarantee.
- Correct or waive minor informalities.

3.3 Evaluate bids for price reasonableness.

- Determine if bids are reasonable and document the determination.
- Perform price analysis, identifying construction related factors affecting the bid price.
- Determine whether cancellation is in the best interest of the Government.
- Assure that any statutory limits are not exceeded.

3.4 Determine the low bidder and items to be awarded in accordance with established procedures in solicitations containing additive/alternate bid items.

3.5 Determine responsibility of apparent low bidder.

- Failure to submit an adequate bid bond.
- Past performance history, including performance reports on file.
- The extent of a pre-award survey which may be required.

3.6 Award the contract.

- Obtain all clearances required.
- Review and approve subcontracting plan (if applicable).
- Obtain funds.
- Prepare and issue Notice of Award and/or Notice to Proceed (if applicable), computing completion dates based on date of approval of performance and payment bonds.

3.7 Review performance and payment bonds to determine:

- Legal sufficiency.
- Sufficiency of the dollar amount.
- Acceptability of individual sureties.

INTRODUCTION TO BID EVALUATION AND AWARD

Safeguarding Bids

The nature of the procurement process requires extreme care and safeguarding in the processing of prospective bids and proposals. The Government, through the contracting officer, and ultimately you, the contract specialist or bid opening officer, must maintain a system or procedure that allows for safeguarding of bids and proposals.

Bid Opening

Bid opening is a formal process, and is public. At a predetermined time and place the Bid Opening Officer announces that bidding is closed and proceeds to read and record the bids on a specific form designed for the construction bid. The reading and recording of bid prices includes the reading of information concerning the bonding pertaining to each bid.

Evaluation

Evaluation of a construction bid requires some special attention in reviewing the bid bond submitted. Some of the criteria used in evaluation of the bid guarantee involves matters of responsiveness. Other matters address responsibility. In effect, the bonding company's willingness to issue a bond may be considered some assurance that the contractor is financially sound enough to perform on the contract.

Price Analysis

Price reasonableness is determined by price analysis. You will want to take into consideration such matters as the bidding climate, competition you received, the comparison in bid prices, Government estimate, historical records you may have available, as well as all other construction related factors.

Additive/Alternate Bids

If the bid is structured in order to accommodate additive/alternate bid items it must be accompanied by a maximum funding limitation, which some agencies refer to as a "control amount" because it is the controlling factor when determining the apparent low bidder, as well as the number of bid items which may be awarded. Other agencies simply refer to it as the funding limitation dollar figure.

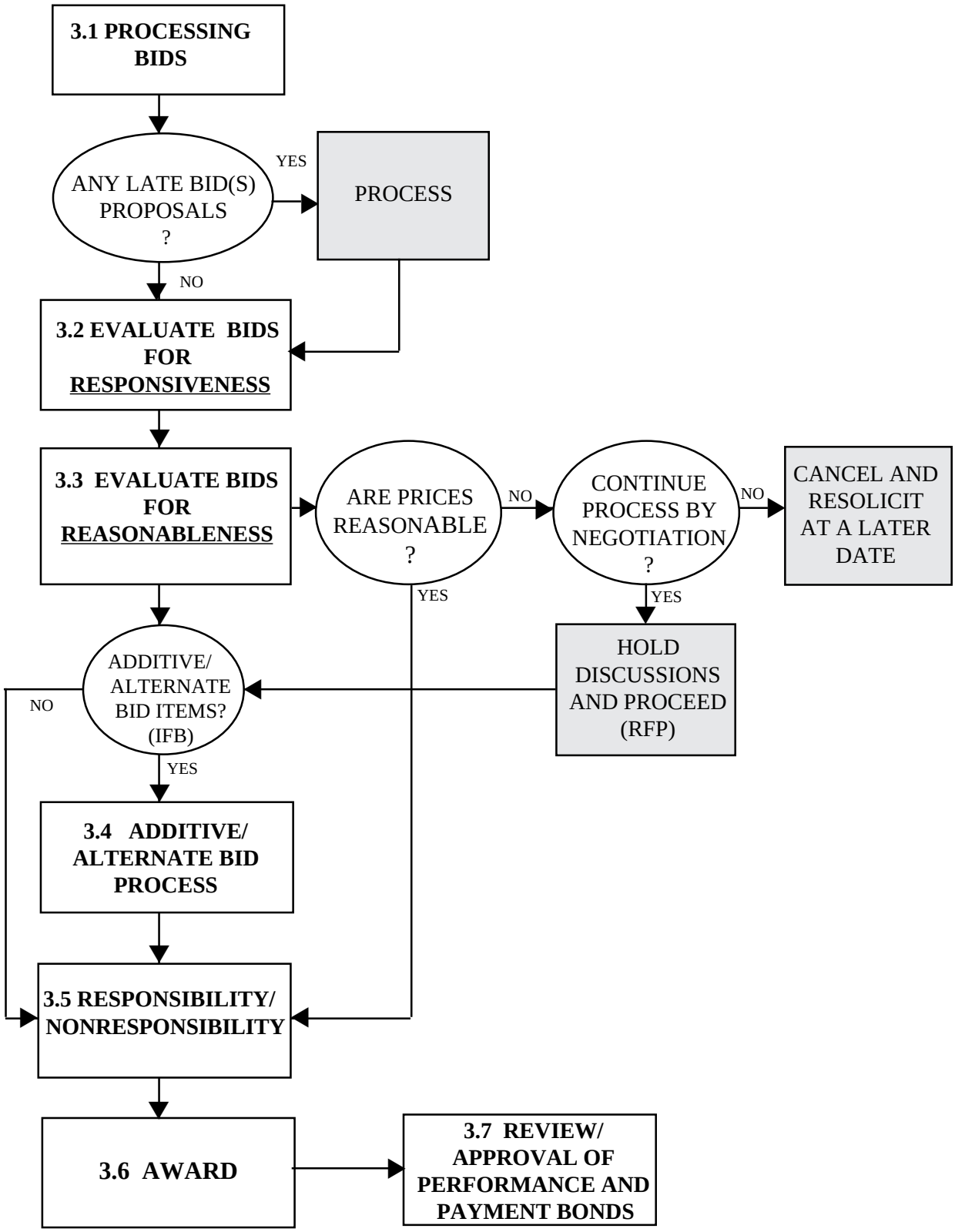
Awarding the Contract

Once the low bidder has been identified there are clearances to be obtained, funds must be obtained for obligation, and documents must be prepared in awarding the contract. Before award can be made, there are frequently instances when a contractor is obligated to prepare and submit for the contracting officer's approval, a Subcontracting Plan within a specified time limitation. Failure to do so will result in the contractor being ruled nonresponsive to the solicitation.

Steps in Performance

The steps in bid evaluation and award are charted on the next page. Following the chart, each step is discussed in turn.

STEPS IN BID EVALUATION & AWARD



STEPS IN BID EVALUATION & AWARD

3.1 Bid Opening

In construction, as in any other bid opening, bids are read aloud and recorded by an appointed Bid Opening Officer. As a contract specialist, you may or may not be the person appointed to read and record bids.

Bonds

In construction bids, bonding information is an important aspect at bid opening, as information about bonds must be read and recorded. The bid abstract form requires information to be recorded such as:

- the name of the bonding company,
- the type of bond, and
- the amount.

Bidders may often request that they be allowed to examine the documents in the hopes of gaining information about their competitors, or to speculate about the responsiveness or responsibility of the low bidder.

READING ABOUT BONDS

Let's reflect back on the scenario at the beginning of the Chapter. Sondra, who was the bid opening officer, wondered silently why bid bond information had to be read and recorded at the bid opening.

It is important because:

- *The standing of bidders is affected when no bond is submitted.*
- *The bid bond may be defective and unacceptable.*

OF 1419

FAR 14.403(a)

For recording construction bids, Optional Form 1419, "Abstract of Offers - Construction", is utilized instead of SF 1409, "Abstract of Offers". Exhibit 3-1 shows a copy of the form.

You will note that the construction bid form does not publicly acknowledge the

- business size status of the bidder,
- completion date, or
- acceptance time the bidder proposes.

As a result, those present at a construction bid opening may frequently ask to allow examination of the bids to obtain information not read at the opening. If you are the Bid Opening Officer, or are present at the bid opening as a representative of the Contracting Officer, <u>you may allow bidders to examine bids upon request, but under your watchful eye</u>.

ABSTRACT OF OFFERS - CONSTRUCTION

1. SOLICITATION NUMBER

2. DATE ISSUED

3. DATE OPENED

PAGE OF PAGES

4. ISSUING OFFICE

I CERTIFY that I have opened, read, and recorded on this abstract all offers received in response to this solicitation.

NAME AND TITLE OF CERTIFYING OFFICIAL (TYPE)

SIGNATURE

DATE SIGNED

5. PROJECT TITLE

8. GOVERNMENT ESTIMATE

(Check A, B, or C and complete D, E, and F.)

A. HIRED LABOR

B. REASONABLE CONTRACT (Without Profit))

C. REASONABLE CONTRACT ((Including Profit)

9. OFFERS

NO. 1

A. OFFEROR

B. BID SECURITY (Type and Amount)

C. AMENDMENTS ACKNOWLEDGED

NO. 2

A. OFFEROR

B. BID SECURITY (Type and Amount)

C. AMENDMENTS ACKNOWLEDGED

6. NUMBER OF AMENDMENTS ISSUED

7A. ITEM NO.	7B. DESCRIPTION OF OFFERED ITEM	7C. EST. QUANTITY	D. UNIT	E. UNIT PRICE	F. ESTIMATED AMOUNT	D. UNIT PRICE	E. ESTIMATED AMOUNT	D. UNIT PRICE	E. ESTIMATED AMOUNT

NSN 7540-01-150-0981 501419-101

NOTE: If more than two offers are received, continue on OF 1419A.

OPTIONAL FORM 1419 (11-88)
Prescribed by GSA - FAR (48 CFR) 53.236-1

Exhibit 3-1

ABSTRACT OF OFFERS - CONSTRUCTION

CONTINUATION SHEET

1. SOLICITATION NUMBER

PAGE OF PAGES

INSTRUCTIONS - Attach this form to OF 1419, Abstract of Offers - Construction, when more than 2 offers are received on a construction project. Each Continuation Sheet will accommodate 12 contract items to conform to the number of items which can be entered on the OF 1419. Use additional OF 1419s for contract items in excess of 12 and attach additional Continuation Sheets (OF 1419A) as needed.

2. PROJECT TITLE

4. OFFERS (Continued)

NO.:____				NO.:____				NO.:____				NO.:____			
A. OFFEROR				A. OFFEROR				A. OFFEROR				A. OFFEROR			
B. BID SECURITY (Type and Amount)				B. BID SECURITY (Type & Amt.)				B. BID SECURITY (Type & Amt.)				B. BID SECURITY (Type and Amount)			
C. AMENDMENTS ACKNOWLEDGED				C. AMEND. ACKNOWLEDGED				C. AMEND. ACKNOWLEDGED				C. AMENDMENTS ACKNOWLEDGED			
3. CONTRACT ITEMS															
A. ITEM NO.	B. ESTIMATED QUANTITY	C. UNIT	D. UNIT PRICE	E. ESTIMATED AMOUNT	D. UNIT PRICE	E. EST. AMOUNT	D. UNIT PRICE	E. EST. AMOUNT	D. UNIT PRICE	E. ESTIMATED AMOUNT					

NSN 7540-01-280-5502 501419-201 **OPTIONAL FORM 1419A** (11-88)
Prescribed by GSA - FAR (48 CFR) 53.236-1

Exhibit 3-1 (continued)

INSTRUCTIONS FOR COMPLETING OF 1419

#1 Solicitation number: Insert appropriate solicitation number per agency procedures.

#2 Date Issued: Insert the applicable month/day/year on which the solicitation document was issued. This information is to be extracted from the request for solicitation document.

#3 Date Opened: Insert the applicable month/day/year the bids were publicly opened.

Page of Pages: Number each page commencing with # 1; e.g., "1 of 3", "2 of 3", etc.

#4 Issuing Office: Insert the Agency/Department title, including the street address, P.O. Box number, if applicable, city, state and zip code.

Also include name and telephone # of the contracting officer or contract specialist responsible for bid evaluation and contract award for the project.

Name and Title of Certifying Official: Type bid opening officer name/title.

Signature and Date Signed: Bid opening officer certifies by signing at the conclusion of the bid opening and noting date of bid opening.

#5 Project Title: Insert project number and , if applicable, project title and geographical location.

#6 Number of Amendments Issued: Insert 1, 2, 3, 4, etc. representing the number of amendments issued to the solicitation prior to bid opening. If no amendments were issued, insert "None."

#7A Item No.: Insert the contract Line Item identifier assigned to each component comprising the items for which bids are required: For example, insert 0001, 0001A etc.

#7B Description of Offered Item: Insert verbiage that corresponds with the item number; i.e., Base Bid, Additive Bid Item, Sub bid item, etc.

#7C Estimated Quantity: If the specific item # is such that only Lump Sum or total cost bids are applicable such as in the case of Base Bid or Additive Bid Items, insert a hyphen (-) in the space provided. If the item # results in unit prices based on a stated estimated quantity as announced by the Bid Opening Official, then include this estimated amount.

#8 Government Estimate: Place an x in the appropriate A, B, or C check block. Generally, Block C is checked. This in essence means that our Government estimate was developed based on reasonable or "should cost" analysis.

#8D Unit: This column need only be completed if the specific item is a sub line item based on an estimated quantity. The information required to be submitted should be indicative of the unit of measure assigned to the estimated quantity amount recorded in #7C. Typical unit identifiers may consist of: S.F., C.Y., C.F., etc. If this is not the case, insert a hyphen (-).

#8E Unit Price: This column is completed only if the specific item falls within the category of #7C and #8D. Government estimated unit price shall be recorded utilizing figures as announced by the bid opening official, e.g.: $2.00, $200.00, etc. Otherwise insert a hyphen (-).

#8F Estimated Amount: The Government estimate shall then be recorded utilizing numerical figures as announced by the bid opening official.

FOR EACH OFFEROR, RECORD THE FOLLOWING INFORMATION:

#9A Offeror: Insert the offeror's name and geographical location in the space provided as it is announced by the bid opening official.

#9B Bid Security (Type and Amount): If the solicitation requires the submission of bid security documents, insert one of the following identifiers:

- SF 24 (Bid Bond)
- CC (Cashier's Check)
- LC (Irrevocable Letter of Credit from Financial Institution)
- SF 28 (Affidavit of Individual Surety)

Also insert the percentage factor; i.e., 20%, 10%, etc. specified in the solicitation.

#9C Amendment Acknowledged: The bid opening officer will announce whether all amendments issued have been acknowledged. Record results by inserting the following:

- N/A — No amendments were issued.
- YES or NO — Only one amendment was issued.
- ALL — Offeror has acknowledged all amendments issued.
- ALL EXCEPT ... — Offeror has not acknowledged all amendments issued. Bid opening officer will identify the amendment # for which acknowledgment has not been received. List missing amendments by number.

#9D Unit Price: The recorder shall insert the appropriate unit price bid in figures as announced and in accordance with the instructions contained in #8E.

#9E Estimated Amount: Insert the dollar figure announced by the bid opening official for the specific line item on which the price has been offered. For example: $2.00, $200.00, etc.

FOR OF 1419A, CONTINUATION SHEET, READ INSTRUCTIONS AT TOP OF FORM.

NOTE: Your agency may require the recording of additional information, such as:

- Set-aside restrictions.
- Name of project manager, design manager, or technical representative.
- Business size status.

The differences between OF 1419 and SF 1409, Abstract of Offers, are displayed in Exhibit 3-2.

DIFFERENCES IN CONSTRUCTION ABSTRACT FORM

ABSTRACT INFORMATION	OF 1419 - CONST.	SF 1409
• Solicitation Number	X	X
• Bid Opening Date	X	X
• Issue Date	X	
• Issuing Office	X	X
• Supplies/Services		X
• Project Title	X	
• Acceptance Time		X
• Business Size of the contractor		X
• Item, Quantity,Unit,Price		X
• Estimated Quantity/Unit/Price	X	
• Estimated Amount	X	
• Delivery Time		X
• F.O.B. Point		X
• Government Estimate	X	
- Hired labor		
- Reasonable cost, with profit		
- Reasonable cost, w/o profit		
• Name of Offeror	X	X
• Bid Security (type and amount)	X	
• # of Amendments Issued	X	
• Acknowledgement of Amendment(s)	X	

Exhibit 3-2

Bid Guarantee

FAR 28.001

In each construction solicitation estimated to **exceed $25,000**, there is a requirement for a bid guarantee or bid bond or bid securities. By submitting a bid bond, the bidder offers a security to ensure that:

1. The bid will not be withdrawn within the period specified for acceptance, and

2. A promise is made to execute a written contract and furnish the required bonds, including any necessary coinsurance or reinsurance agreements, within the time frame specified.

Independent Government Estimate

FAR 36.203(a)

An independent Government estimate shall be prepared and submitted to the Contracting Officer at the earliest date practicable for each proposed construction contract and modification expected to **exceed $25,000**. (It is on the basis of this estimate that the magnitude of the project is established - See Chapter 2.4.) The Government estimate shall be prepared in as much detail as though the Government were competing for award.

Revisions may be required in a Government estimate when amendments have been issued prior to bid opening.

> In some agencies, the Government must prepare and submit at bid opening, an Official Government Estimate which, in effect, is an estimate reflecting the total of all changes that have been made during the solicitation phase. It is submitted in a sealed envelope prior to the time established for receipt of bids or proposals and is marked plainly "Official Government Estimate". It is sometimes read aloud at bid opening to publicly establish
>
> - what the effort is expected to be, and
> - what the Government considers to be a reasonable price.

A Government estimate is also required in **negotiated procurements** for the same purpose, but is not revealed. However,

FAR 36.203(c)

> " an exception to this rule may be made during contract negotiations to allow the contracting officer to identify a specialized task and disclose the associated breakdown figures in the Government estimate, but only to the extent deemed necessary to arrive at a fair and reasonable price."

Funding Limitations

When it appears that funds available for a project may be insufficient for all of the desired features of a project, the bid may be structured to allow the award of a **base bid, plus added (or additive) bid items** if money is available. (See Exhibit 3-7). The key to determining the low bidder in such a situation is in the base funding (or "control") amount.

This base funding limit must be established prior to bid opening.

> Check your agency procedures, but in some agencies, the figure is placed in a sealed envelope and deposited along with the bids and the official Government estimate in the bid box. If you are the bid opening officer, you will open and read the envelope containing the base funding amount immediately following the reading of the official Government estimate.

One of your duties as a contract specialist is to see to it that a base funding figure is always obtained prior to bid opening when additive/alternate bid items are involved. Otherwise the bid opening should be postponed until one is obtained.

Since the Official Government Estimate is not intended to reflect the funds available for a project, the amount cited as the base bid figure plus additives should exceed the Government estimate.

You must also remember that when opening and recording bids which contain these provisions, you must

1. read the lump sum bid for each bidder, and then
2. read each of the additive/alternate bid item prices.

SONDRA GOOFED!!!?

In the scenario, the funding limitation amount was not available, but Sondra decided to open and read bids anyway. By making this decision, it is clear that the bid opening officer did not understand the process. The evaluation procedure is dependent upon the base funding limitation amount in establishing the low bidder. In order to protect the competitive bidding system, the funding amount must be revealed at that time. Without it, bid opening cannot be held. The bid opening officer should have noted the absence of the figure prior to bid opening and postponed the opening if necessary, until one could be obtained.

3.2 Responsiveness

Sometimes you may be confused as to what may be considered a responsiveness issue as opposed to responsibility. A good rule to remember is that

responsiveness is determined as of the date of bid opening;

the bidder may not add or subtract to the bid thereafter to make it responsive, whereas

responsibility is determined at the time of award.

At that time the bidder must possess the ability to perform or present evidence that he/she has the ability to obtain it by some other means (i.e. by a subcontract).

For example, a construction bidder may not possess all of the special permits required at the time of award, such as those required in disposing of hazardous waste, or other permits required by the State on environmental issues. However, evidence must be submitted to the Contracting Officer that steps in obtaining the permits have been initiated. In this case the Contracting Officer may make a determination of responsibility based on evidence that the bidder is, or will become responsible on this issue.

FAR 14.404-2(d)

Exhibit 3-3 illustrates some examples of responsiveness issues. Some specific construction applications of these issues follow the exhibit.

RESPONSIVENESS ISSUES PERTAINING TO CONSTRUCTION

- Verify that bids are materially balanced in those containing multiple bid items; (Lump sum plus unit prices)
- Evaluate suspected mistakes in bids; (Labor intensive. Many subcontractors. Often difficult to perform analysis)
- Determine the responsiveness of the bid guarantee;(Uncommon issue in supply contracts. Major issue in construction.)
- Dispose of clerical errors and resolve minor informalities; (Often pertains to bonds.)
- Review bid for conformance to the essential requirements of the solicitation; and
- Check for bidder acknowledgement of amendment(s). Important elements, such as wage rate changes, are contained in amendments.

Exhibit 3-3

Unbalanced Bidding

Unbalanced bidding is a practice whereby the bidder bids high on some items and low on others. This may occur on multiple bid items, or in a construction solicitation that calls for a lump sum, plus unit priced bid items with indefinite quantities. Contractors sometimes under or overstate unit prices for specific elements of work if there is reason to believe that the estimated quantities are erroneous.

> **For example,** a bidder may price excavation items higher because they will be paid in early progress payments and because they may have been under-estimated by the Government in quantity, while reducing other items to keep the total dollars of the offer competitive

The contractor may be able to "buy into a contract" by the manipulation of unit prices in order to generate "windfall profits". It may also occur in construction maintenance contracts that call for multiple bid items.

Mistakes in Bid

The type of evidence that you may receive from a contractor to substantiate an alleged mistake on a construction bid may be somewhat more detailed due to the nature of the contract. When a mistake is suspected, confirmation must be obtained from the bidder.

> **For example**, a construction project original worksheet normally consists of many subcontractor quotations, scribbled notes, doodles, spilled coffee, erasures and notes. This describes the typical project estimating worksheet, including an equipment spreadsheet, compiled by a construction estimator whose job it is to solicit and receive quotations from various subcontractors. Quotations are usually hastily obtained on the telephone. From the original worksheet another recap sheet is compiled (usually by computer). Even plans and specs may be covered with notations on material takeoffs.

If you are evaluating an alleged mistake, you must insist that ALL evidence be submitted, including hand scribbled notes. The contractor may be hesitant to submit this kind of paperwork, thinking that it would not reflect the “best foot forward” image and chooses instead to produce a clean, well laid out computer printout sheet. Computer spread sheets can provide acceptable evidence, especially when submitted in conjunction with original hand written quote sheets or notes compiled by the estimator as described. A subcontractor’s verbal quotation should also be substantiated by written confirmation if it is involved in the mistake.

Bid Guarantee

FAR 28.101-1(b)

FAR 28.001(b)

All types of bid guarantees are acceptable for supply and service contracts. However, in construction an annual bid or performance bond is not acceptable. Only separate bid guarantees are permissible in connection with construction contracts, to be executed on the forms provided in the solicitation. Exhibit 3-4 contains a listing of the bond forms required for construction contracts.

BONDS AND BOND RELATED FORMS		
FORM NUMBER	**BOND**	**FAR REFERENCE**
SF 24	Bid Bond	28.106-1(a)
SF 25	Performance Bond	28.102-1 & 28.106-3(b)
SF 25-A	Payment Bond	28.103-3 & 28.106-3(b)
SF 25-B	Continuation Sheet	28.106-1(d)
SF 28	Affidavit of Individual Surety	28.203
SF 273	Reinsurance Agreement for a Miller Act Performance Bond	28.202(a)(4)
SF 274	Reinsurance Agreement for a Miller Act Payment Bond	28.202(a)(4)
SF 1414	Consent of Surety	28.106-5(b)

Exhibit 3-4

In lieu of providing a bond executed by a surety, the bidder may execute a Standard Form 24, Bid Bond (See Exhibit 3-16 for similar SF 25), and deposit designated types of securities with the CO. You must return the security to the bidder when the bidder's obligation is satisfied. Securities may be in the form of:

FAR 28.203-2

- Currency.
- U.S. Securities.
- Stocks and Bonds.
- Real Property.
- Irrevocable letters of credit.*

FAR 28.201(a)

You must exercise care in examining the bid bond. A bid will not always be rejected because the bid bond form is not properly completed. The test of responsiveness is whether there is adequate security for the bond, so the Government will receive the protection it needs. For an individual surety, assets must be sufficient to protect the Government. If such protection is obtained, and it does not constitute prejudice, minor omissions or mistakes in the bid bond may be waived. Some examples are given in Exhibit 3-5.

* The VA allows irrevocable letters of credit only for bid bonds.

REVIEWING THE BID GUARANTEE FOR RESPONSIVENESS

Correct Date:
A bid bond that shows an incorrect bid date, or no date at all, is nevertheless acceptable if there is no question regarding the bid to which the bond is intended to apply, and on which the surety will be bound. ①

The GAO's rationale: Since the IFB number or description of the work on the bid bond, or even the fact that the bond and bid are included in the same envelope, should serve to identify the bond with the bid, the wrong date or no date should not render the bid nonresponsive.

Identity of the Surety:
Unlike the beneficiary, the identity of the surety on the bond, like the principal, is important. Unless the identity of the surety is clearly stated, the bond is defective. For example:

In one Comp. Gen. decision, a bid bond that identified one surety at the top and another at the bottom was ambiguous and made the bid nonresponsive.√

In another, a bid bond showed one company as the surety, but the signature line showed a different company with a similar name. The bid had to be rejected⑤

You must consult the Treasury Department Circular 570 for the listing of the name of the bonding company to assure that the bonding company is licensed to approve the bond in the state where performance is to take place and the maximum dollar amount capacity is within the limitation established in the listing.

Identifying the Penal Sum:
If the principal (the bidder) fails to meet the commitments the bond is intended to insure, the surety becomes liable to the Government for a payment up to a stated maximum amount. This amount is called the "penal sum." Failure of the bid bond to indicate the penal sum in the appropriate place does not affect its acceptability if the sum is otherwise identified in the bid. The bidder may express the amount in terms of percentages, and this is acceptable as long as the bid price is ascertainable.②

Beneficiary:
Is it important to properly identify the principal in the bid bond? The Comptroller General has said "no". An erroneous listing of other than the United States, such as listing the Procuring Activity or the State of Alaska as the principal, has no meaning, since it is always the United States. ③

Signature:
The failure of a bidder to sign a bid bond may be overcome by a signature on the bid itself. In fact some court decisions show that it may be argued that failure of the bidder to sign the bond may be of no consequence. However the failure of the surety to sign the bond is another matter. The bid bond must be signed on behalf of the surety by an authorized agent of the bonding company. In fact, the authority to sign, thereby binding the company, must be provided at bid opening. Failure to meet this requirement renders the bid nonresponsive.

What should you do in a case whereby the bond contains the official seal which includes the name of the bonding company? Would that suffice? The Comptroller General says no.

Pen and Ink Changes:
Any alterations must be initialed by the agent to demonstrate the surety's knowledge of the changes that have been made.

1. Comp Gen Dec B-140154, (1959); Comp Gen Dec -168666 (Jan l970).
2. Comp Gen Dec B-174754, (1972).
3. Comp Gen Dec B-170694 (13 Dec 1970).
4. Comp Gen Dec B-209446.
5. Comp Gen Dec B-213148.

Exhibit 3-5

Noncompliance issues are the same for construction as for any other type of contract calling for bonds.

Exhibit 3-6 reviews the criteria for determining whether a bid bond defect may be waived.

BID GUARANTEE NONCOMPLIANCE WAIVERS

FAR 28.101-4(c)

Noncompliance with a solicitation requirement for a bid guarantee requires rejection of the bid, except in the following situations when the noncompliance shall be waived, unless the Contracting Officer determines, in writing, that acceptance of the bid would be detrimental to the Government's interest.

(1) Only one bid is received. In this case, the Contracting Officer may require the furnishing of the bid guarantee before award.

(2) The amount of the bid guarantee submitted is less than required, but is equal to or greater than the difference between the bid price and the next higher acceptable bid.

(3) The amount of the bid guarantee submitted, although less than that required by the solicitation for the maximum quantity bid upon, is sufficient for a quantity for which the bidder is otherwise eligible for award. Any award to the bidder shall not exceed the quantity covered by the bid guarantee.

(4) The bid guarantee is received late, and late receipt can be waived.

(5) A bid guarantee becomes inadequate as a result of the correction of a mistake (but only if the bidder will increase the bid guarantee to the level required for the corrected bid).

(6) A telegraphic bid modification is received without corresponding modification of the bid guarantee, if the modification expressly refers to the previous bid and the bidder corrects any deficiency in the bid guarantee.

(7) When an otherwise acceptable bid bond was submitted with a signed bid, but the bid bond was not signed by the offeror.

(8) When an otherwise acceptable bid bond is erroneously dated or bears no date at all.

(9) When a bid bond does not list the United States as obligee, but correctly identifies the offeror, the solicitation number and the name and location of the project involved.

Exhibit 3-6

When you are evaluating a bid that is structured for additive/alternate provisions, you must pay particular attention to paragraph (3) in Exhibit 3-6.

> **For example**, after you have completed your responsiveness determination and found a bidder nonresponsive because of failure to offer a bid guarantee that covered the entire bid amount, including base bid and all alternate (or additive) bids, and you later determine that all bid items cannot be awarded, you must again evaluate that bidder for responsiveness. In accordance with paragraph (3), the bidder can submit a guarantee for only the amount to be awarded. By reducing the number of items to be awarded, the same bidder may now be a responsive bidder.

Minor Informalities and Clerical Errors

FAR l4.405

The procedures for evaluating construction bids for minor informalities, are the same as followed in evaluating any bid for award. However, because of the number of amendments that may be issued in a construction bid, acknowledgment of amendments is an important aspect of the responsiveness determination.

> **For example**, the construction bid form (SF 1442) has spaces provided for the bidder to acknowledge each amendment by number. It is unsatisfactory for a bidder to simply make the statement "I acknowledge all amendments." If you issued any changes to the wage rate by amendment, issued changes to the specification, or changed the completion date, you have made changes that go to the material substance of the bid. Therefore, failure to acknowledge an amendment in these instances cannot be determined a minor informality.

You are cautioned that GAO and court decisions have played a major role in decisions of this nature. If you are the contract specialist evaluating a bid that involves a decision as to a bidder's responsiveness for failure to acknowledge an amendment, obtain legal advice before making a recommendation.

Any clerical mistake made on the face of the bid may be corrected by the contracting officer, after first obtaining concurrence from the bidder.

Essential Requirements of the IFB

As part of the overall determination of responsiveness associated with the review of bids/proposals for compliance, you may need to establish a separate technical review panel to determine technical responsiveness.

The use of this type of review procedure is most common when:

- Bidders are authorized to submit bids containing a specification that includes an “or equal” item(s).
- Bidders submit alternate bids as allowed by the solicitation.
- Specifications are written as performance specifications (i.e., two-step sealed bidding procedure.)
- Source selection procedures are used.

3.3 Evaluation of Bids

FAR 14.407-2(a)

The contracting officer shall

> "determine that ... the prices offered [by a prospective contractor] are reasonable prior to award of a contract."

In evaluating construction bids or proposals, a detailed government estimate is provided, which becomes a valuable tool for you in performing your price analysis to determine reasonableness.

Independent Government Estimate

The construction estimate is frequently referred to as the “brick and mortar” estimate. When you examine the details you will find that it is based on:

- Detailed analysis of construction methods;
- Temporary construction facilities; and
- Material, labor, and equipment requirements.

The work is further divided into major components or tasks required, (i.e., plumbing, electrical, etc.). Each of these is then separated into a further breakdown of materials such as:

- Cement.
- Aggregate.
- Reinforcing steel.
- Additives.
- Form lumber and hardware.
- Form fabrication.
- Form erection and stripping.
- Placement of reinforcing steel.
- Mixing and placing concrete.
- Finishing concrete surfaces.

The estimated unit costs of labor and material for each element are then entered and multiplied by the quantities of each. Costs such as

- plant
- equipment
- field overhead
- home office overhead
- profit

are then added.

For the most part, Government cost estimating personnel prepare estimates in much the same way that a contractor does. Some reliance is placed on factual information obtained from previous similar work. However, since

- location,
- weather,
- market conditions, and
- other variables

must be introduced, information concerning previous similar projects must be treated as merely a tool. In addition, no matter ① what kind of estimated guidelines are used, or ② what adjustments are made to reflect current conditions, you will find that there are no tools available to measure a contractor's particular capabilities. Each contractor is proficient in some type or types of work, less proficient in others, all of which has an effect on price.

Price Analysis

After you have

- compared bids received to the Government estimate,
- compared prices with other bids or offers, and
- used a price analysis technique such as percentages (a common "rule of thumb" measuring practice to use for comparison),

you will be able to remove bids that contain an obvious mistake or are so far out of line that there is an obvious misunderstanding of scope, identify the apparant low bidder, and determine if the bid is fair and reasonable.

Factors which may influence bid prices in a construction bid include:

- Type of Construction, Completion dates, Weather.
- Extent of Competition.
- Availability of labor or materials.
- Contingencies such as:
  - Lack of firm plans or specifications.
  - Unusual or unique nature of the construction.
  - Possible price increase in taxes, expenses, or materials.
  - Contractors lack of confidence in its own estimate.
  - Variation in estimated quantities (15%).
- Insurance costs on high risk projects in terms of safety.
- Extent of construction in the private sector or other agencies which will be bidding at approximately the same time.
- Quality assurance provisions.

Upon conclusion of the price analysis you may:

- Determine low bid(s) to be reasonable.
- Determine all bids received to be unreasonable, but in lieu of cancellation, recommend that the procurement be continued by negotiation.

- Request confirmation from low bidder if mistake is suspected.
- Make a recommendation to cancel the solicitation.
- Determine if the low bid exceeds the statutory cost limitation established in the solicitation.

Some bids appear to be unprofitable or even represent a loss , because the bidder is **"buying in"** with an anticipation of recovering losses during change order negotiations at a later date. You need to be wary of this and not confuse it with the bidder's possible misunderstanding of the Government's requirement.

Statutory Cost Limitation

FAR 36.205(a)

"Contracts for construction shall not be awarded at a cost to the Government in excess of any statutory cost limitation". In construction there are certain types of facilities that are subject to this restriction, such as

- Military housing.
- Minor restoration and alteration projects under $1.5 million.
- Prospectus level projects.

It is the project manager's responsibility to specifically notify you at the time of receipt of the procurement request package of any statutory cost limitations that are applicable to the requirement. Bidders must be put on notice of the restriction, by your placing in a prominent location (Usually on the face of the bid, or on the Schedule page), a statement similar to the one below:

> "The requirements set forth on the schedule page of this solicitation are subject to a statutory cost limitation of $_____. Bids received which exceed this amount shall be determined nonresponsive."

If the bid contains **multiple line items**, such as one containing multiple alteration and restoration projects, the solicitation must clearly communicate the costs attributed to each project, so that costs on each project can be identified.

3.4 Additive/Alternate Bid Items

Agencies employ different terminology for this type of bidding;

- some using "additive" bid items,
- others preferring the term "alternate", and
- others simplying using "options".

Sometimes more than one of the terms is used. All provide for a base bid plus extra, smaller bids that can be awarded separately or together as funding permits.

Exhibit 3-7 sets forth criteria for use of "additive" bids.

CRITERIA FOR USE OF ADDITIVE BID STRUCTURE

A serious doubt exists that money available for the project may be sufficient to award.

The base bid must include all features that are essential to a sound and adequate building design.

There are features of the project which could be separated from the base bid without disturbing the usability, the function, or purpose of the facility.

One item must be specifically identified as the base bid item.

Additional items must be kept to a minimum (usually no more than four). They should not involve substantial amounts of work in relation to the base bid.

The items to be separated out from the base bid on the project must be independent of the base bid, and independent of each other if there are multiple items.

> **Example**: One item cannot be “addition to a porch, and another item “screening for a porch”, since award could not be made on one item alone.

Items are listed in order of priority rather than dollar value.

A clause is incorporated in the solicitation describing in detail the process of determining the apparent low bidder.

A control amount is established. There is no relationship between the control amount and the Government estimate, except that a contract should not be advertised when the Government Estimate for the least amount of work upon which award can be made, is in excess of the control amount.

The language used in soliciting additive bid items should be approved by counsel.

Exhibit 3-7

The funding limitation or control amount is a single fixed dollar amount which is established prior to bid opening and used as a baseline in establishing the low bidder. (It is referred to as a "control" amount because the dollar amount specified controls how many items can be awarded.)

An example of an additive/alternate bid clause evaluation is provided in Exhibit 3-8.

AN ADDITIVE OR ALTERNATE ITEM BASIS OF AWARD CLAUSE

(a) The low bidder for purposes of award shall be the conforming responsible bidder offering the low aggregate amount for the first or base bid item, plus or minus (in order of the priority listed in the schedule), those additive bid items providing the most features of the work within the funds determined by the Government to be available before bids are opened.

(b) If addition of another bid item in the listed order of priority would make the award exceed such funds for all bidders, it shall be skipped and the next subsequent additive bid item in a lower amount shall be added if award thereon can be made within such funds.

For example: When the amount available (control amount) is $100,000, and a bidder's base bid and four successive additives are $85,000, $10,000, $8,000, $6,000 and $4,000, the aggregate amount of the bid for purposes of award would be $99,000 for the base bid plus the first and fourth additives, the second and third additives being skipped because each of them would cause the aggregate bid to exceed $100,000.

(c) All bids shall be evaluated on the basis of the same additive or deductive bid items. The listed order of priority need be followed only for determining the low bidder.

(d) After determination of the low bidder, award in the best interests of the Government may be made on the base bid and any combination of additive bids for which funds are available at the time of award, provided that award on such combination of bid items does not exceed the amount offered by any other conforming responsible bidder for the same combination of bid items.

Exhibit 3-8

An example of a bid evaluation using this additive/alternate bid clause is illustrated in Exhibit 3-9.

IDENTIFYING THE LOW BIDDER

To illustrate "additive or deductive" bid item evaluation procedures, assume the following:

Description		Bidder A	Bidder B
Base Bid Item 1	Dispensary	$585,000	$590,000
Additive Item 1A	Parking lot	10,000	9,000
Additive Item 1B	Grounds lighting	8,000	3,000
Additive Item 1C	Lawn sprinkler system	6,000	4,000
Additive Item 1D	Landscaped garden	4,000	8,000

Control Amount: $600,000
Government Estimate: $589,000.

After evaluation, it is determined that Bidder A is the apparent low bidder for combination of Base Bid plus Additive Items 1A and 1D in the amount of $599,000.

	Bidder A	Bidder B
Base Bid + 1A	$595,000	$599,000
Base Bid + 1A + 1B	603,000	602,000
Base Bid + 1A + 1C	601,000	603,000
Base Bid + 1A + 1D	599,000	607,000

Exhibit 3-9

Additional Funds

What if the control amount determined to be available at the bid opening is not enough to cover even the base bid?

Additional funds can be made available after bid opening, and the contracting officer can make an award to the low bidder on the base bid, plus any additives within the increased amount of money. But, you cannot displace a bidder in doing so.

NO CLAUSE, NO AWARD

The bid opening officer, wondered about the evaluation procedure when using additive bids. A clause, similar to the one described in Exhibit 3-8, should have be included in the solicitation. It wasn't, so the award can only be made to the low bidder on the original base bid. But wasn't that bid too low to be considered a valid bid?

Options

Bids that include options are subject to higher level approvals in most agencies. The contracting officer may structure bids to include an option. The decision to do so is normally driven by lack of sufficient funds expected to be available at the time of award. The appropriate use of options may include, but not be limited to the following criteria:

- When additional work is anticipated, but funds are not expected to be available at the time of award, and it would be impractical to award a separate contract, or to permit an additional contractor to work at the same site at the same time the base bid contractor is working.
- When fixed building equipment, (e.g. elevators, escalators, etc.), will be installed under the construction contract, and it is advantageous to have the installer of the equipment maintain and service the equipment during the warranty period.

Procedures to follow:

- Solicitations containing options must state the period within which the options must be exercised.
- Solicitations must contain the basis of award, inclusive or exclusive of options.
- Language used is subject to the approval by counsel and agency policy and procedures.

Alternates and Options

Some agencies do not allow alternates or options. However, solicitations may include alternates and options when criteria for evaluating both are met. The basis for award must be included in the solicitation as well as the appropriate option to extend clause. The **low bidder** for purposes of award will be

- the responsive, responsible bidder
- offering the lowest aggregate price
- for the base bid, plus those alternates (additives)
- in the order of priority listed in the solicitation
- that provide for the most features of work
- within the funds available at bid opening,
- plus all options designated to be evaluated.

If you are evaluating a bid structured in this manner, remember that in the case of options associated with alternates, the basis of award may require the evaluation of the option also if the related alternate is selected.

3.5 Responsibility

FAR 9.105-1(c)(6)

The determination, as to whether a contractor is responsible or not, is the last, but most important step in processing bids. The determination of responsibility is left primarily to the contracting officer. Exhibit 3-10 lists sources of information for the contracting officer to draw upon when making his/her determination.

SOURCES OF INFORMATION FOR RESPONSIBILITY DETERMINATION

Area of Responsibility	Sources of Information
Adequate Financial Resources:	SBA. Bonding Company. Surveying Activity. Dun and Bradstreet. Financial Statements.
Performance/Delivery Requirements:	Bonding Company. Past Performance Records. Performance Evaluation Reports.
Record of Integrity:	Judicial records which reflect action of current/past officers of the company - including any “Nolo contendre" plea. Failure of the firm or key employees to pay Federal Income Tax. Bonding Company.
Otherwise qualified to receive award under all applicable laws and regulations in existence:	Review the “List of Parties Excluded from Federal Procurement or Non-Procurement Programs”. (Debarred Bidders List.) Bonding Company. Performance Evaluations.
Organizational Experience and Expertise:	Pre-Award Survey. Information obtained from contractor. Performance Evaluations. Bonding Company.

Exhibit 3-10

Although the criteria is the same for determining the responsibility of any contractor, the information on which responsibility is based for a construction contractor is obtained in ① a different manner, and ② from different sources.

> **For example:** In a supply contract a preaward survey would most likely be requested concerning a contractor's financial capabilities, whereas in construction contracts we usually look to the bonding companies for assurance of that element.

This does not mean that you cannot request such assistance from the Defense Contract Management Command or any other agency or surveying activity if need be; but primarily the Government relies on the surety's system of approving only financially responsible construction contractors for bonding.

Special Considerations

In addition to the responsibility areas listed in Exhibit 3-10, other special considerations and standards for determining a construction contractor's responsibility are:

- Adequate facilities,
- Equipment, or ability to obtain it,
- Technical skills or expertise,
- Quality assurance capabilities, and
- Expertise in construction management.

Experience Requirement

In situations whereby <u>certain skills are critical to a project</u>, the solicitation may require, as a prerequisite to award, that the bidder present evidence showing the number of years of experience in such areas as:

- Performing construction work of a specialized nature, or
- Management and organization of a major construction project.

This type of requirement must be justified and must reasonably relate to the bidder's responsibility and not be unduly restrictive. When you are evaluating the responsibility of a bidder under these circumstances, the experience of the **firm's principal officers may be considered, as well as that of a specialized subcontractor** that the bidder proposes to use.

License Requirement

Solicitations will frequently require that the bidder have a special

- Federal, • state, or • local

license or operating certificate, which is <u>in addition to the standard ones</u> included in the boilerplate clauses.

Although the bidder does not need to have the licenses or certificate(s) at the time of bid submittal, the bidder must demonstrate the ability to obtain the license permit to the satisfaction of the CO. Even though the contract is to be performed in a geographic area over which the Federal Government has exclusive jurisdiction, the solicitation may impose a requirement for specific state or local licenses. The requirement may be satisfied by the bidder, or by a proposed subcontractor.

In addition to the specialized responsibility issues already discussed, there are other matters which must be evaluated, such as:

- Failure to submit an adequate bid bond. (See Exhibit 3-6.)
- Past performance history.
- Preaward survey results.

Past Performance History

The potential contractor's capacity to perform the work, includes the responsibility of completing the project **on time**. In gathering information on past performance, be sure that more emphasis is placed on

- recent evaluations,
- similar to the solicitation at hand, both in terms of
- dollar value, and
- type of construction.

You should keep in mind that the mere fact of unsatisfactory performance under one prior contract does not necessarily establish a lack of responsibility. Construction contractors usually have several jobs going in different areas, managed by different superintendents having various capabilities and management styles, which may have an affect on the outcomes, ranging from excellent to unsatisfactory. Nevertheless,

① Past Performance and ② Performance Evaluations

should be considered and evaluated on merit, giving preference to the most recent ones.

The prospective contractor is usually more than willing to provide contract numbers, names, phone numbers and other information concerning past performances on other contracts outside your activity or agency. These are easily confirmed by phone calls and will provide additional documentation concerning business management capabilities as well as information concerning past performances.

For example:

• Is the business based solely on Government awards?	Financial
• Does the contractor diversify?	Business Practice
• What are the ranges of jobs performed in terms of dollar value?	Capacity
• Has the company performed on the same type of construction as the one you are about to award?	Experience
• How much and what kind of work is normally performed with company labor forces?	Expertise
• Request contract numbers, names and telephone numbers on other contracts of a similar nature.	Experience

---

Preaward Survey

We have established that an essential step in every procurement involves a determination that the potential contractor is well qualified to perform. If little or no historical data exists on which to base your determination, it is essential that a preaward survey be performed.

The preaward survey may be performed using

- in-house personnel who are considered qualified, or
- through another office or agency

For in-house effort, the Contracting Officer should take the lead in forming the team. Team members should consist of specialists that are qualified to perform particular functions.

For example, if financial matters of a contractor are a concern, the comptroller, or someone knowledgeable on the subject, would most likely be a key team member.

Other members would consist of engineers or technical experts. Also, the A/E may participate, but only in an advisory capacity to the Preaward survey team.

The preaward survey should consist of a prearranged, preplanned visit to the contractor's place of business. It is wise to keep the number of people

performing the survey to a minimum, so as not to appear intimidating to the contractor. The extent of the survey depends on several factors:

- Equipment owned.
- Insurance and bonding capability.
- Amount of information which is already available.
- Experience of the contractor.
- Dollar value of the proposed contract.
- Criticality and complexity of the project.
- Subcontractor capabilities.

The preaward survey team should perform an on-site assessment of the contractor's equipment and facility, noting conditions found in terms of general management:

Does the equipment appear well maintained?
Does it appear to be adequate?
Does the storage area appear orderly and well maintained?

The visit should be conducted with a minimum disruption to the contractor, and questions handled with courtesy and diplomacy. Each team member's area of responsibility must be identified.

Consideration of **areas to be reviewed**:

- Financial: Data such as balance sheets, profit and loss statements, and any other documentation that would be beneficial in a financial analysis , especially if the contractor has submitted a bid guarantee other than through an approved bonding company underwritten by the Treasury Department.
- General Information: Data on facilities, equipment, and personnel pertinent to contract performance.
- Financial Arrangements: Written statements of commitments concerning financial assistance and subcontracting arrangements.
- Workload: List of the contractor’s current and projected workload.
- Safety: Evidence of the contractor’s safety record.
- Subcontractor: Relationship with subcontractor.

After the preaward survey is completed, you must prepare

- a memorandum of findings, along with
- a recommendation as to responsibility/ nonresponsibility
- signed by all members of the team, and dated.

The contracting officer is not bound by the recommendations of the team, but normally will concur with the recommendations, unless there are overriding circumstances.

Exhibit 3-11 provides a flow chart of the responsibility process.

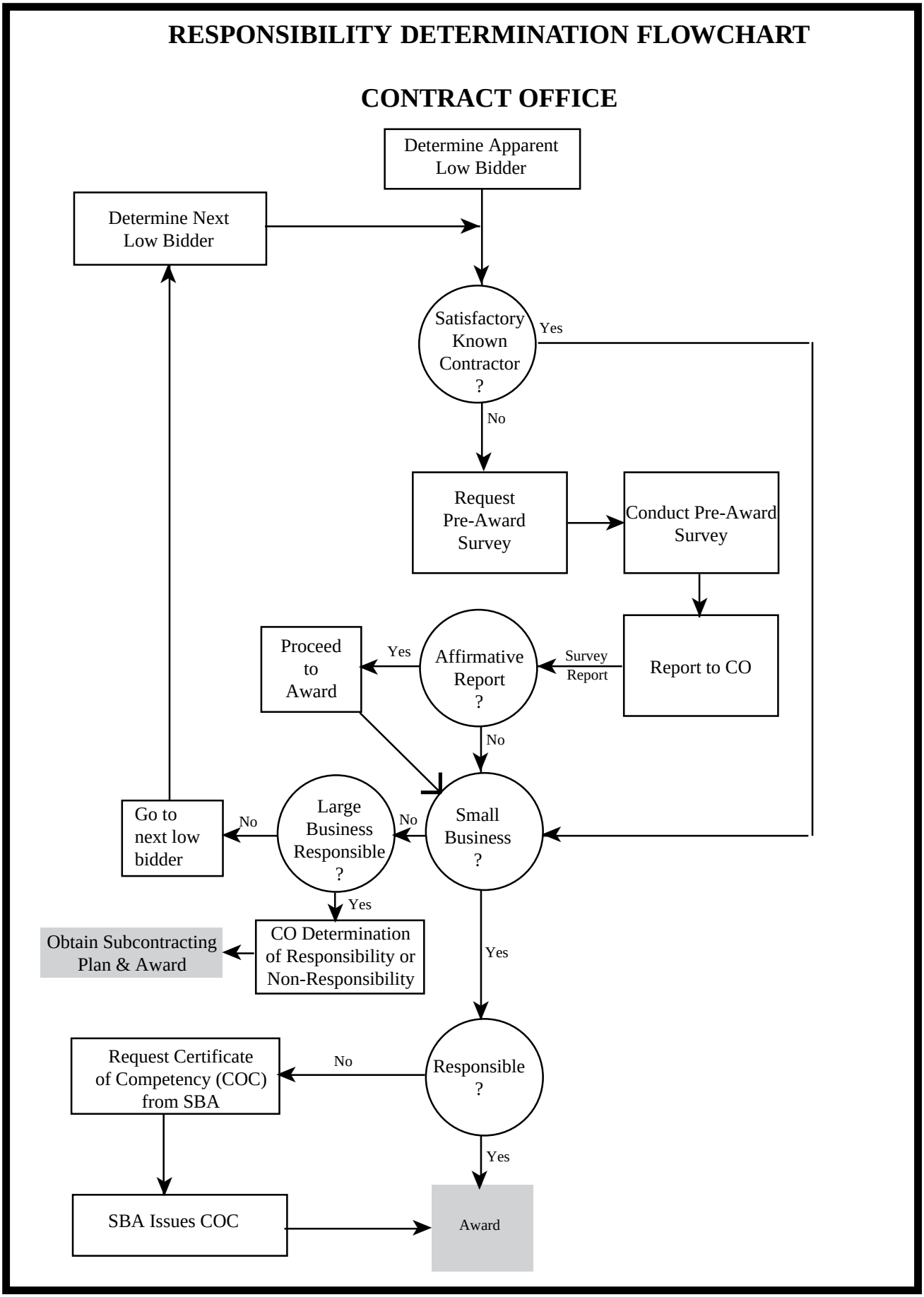

RESPONSIBILITY DETERMINATION FLOWCHART
CONTRACT OFFICE
Determine Apparent Low Bidder
Determine Next Low Bidder
Satisfactory Known Contractor ?
Yes
No
Request Pre-Award Survey
Conduct Pre-Award Survey
Report to CO
Survey Report
Affirmative Report ?
Yes
Proceed to Award
No
Small Business ?
No
Large Business Responsible ?
No
Go to next low bidder
Yes
CO Determination of Responsibility or Non-Responsibility
Obtain Subcontracting Plan & Award
Yes
Responsible ?
No
Request Certificate of Competency (COC) from SBA
Yes
SBA Issues COC
Award

Exhibit 3-12

Buying-In

The construction contractor may bid more often at, or below cost, than the manufacturing or supply contractor because of the nature of external forces, such as

- seasonal ups and downs because of inclement weather,
- strikes, or
- availability of labor,

which impact on the contractor's ability to maintain key employees on the payroll and meet overhead costs.

You must be careful to insure that the offeror is not just "buying-in", which means

" Submitting an offer below anticipated costs, expecting to:

FAR 3.501-1

(a) Increase the contract amount after award. (e.g., through unnecessary or excessively priced change orders); or

(b) Receive follow-on contracts, at artificially high prices, to recover losses incurred on the buy-in contract."

The first step you would take in a situation where a bid is considered below cost, is to advise the offeror that you suspect a mistake was made in bid calculations.

The second step is to ascertain the facts and exercise an element of judgement. The Contracting Officer, in good faith, may have reason to believe that the bidder has the required technical, management, and financial ability to perform. If a bidder has this ability, a determination of responsibility must be made even if award may result in a loss.

PROFIT OR LOSS

It was evident at bid opening that the apparent low bid was so low as compared to other bids received and the Government estimate, that a mistake was suspected. However, when questioned, the low bidder affirmed the bid.

The Contracting Officer then had to ascertain:

"Does this bidder possess the necessary technical and management skills to perform, or have the ability to obtain them?" and
"Does the bidder have the financial capability, or the means to obtain it?"

Since the answer to both questions was "yes", the Contracting Officer determined that the bidder was responsible and awarded the contract, even if it may result in a loss to the contractor.

3.6 Notice of Award

For construction contracts, the Subcontracting Plan requirement threshold is $1,000,000. Therefore, as soon as it can be determined which offeror is in line for award, the offeror, if other than small business, must be contacted and a Subcontracting Plan obtained.*

Subcontracting Plan

FAR 19.702

In sealed bidding, if the bidder selected for award fails to submit a Plan within the prescribed time limit, the bidder becomes ineligible for award.

In negotiated acquisitions, if the apparently successful offeror fails to negotiate a Plan acceptable to the contracting officer within the time limit prescribed, the offeror will be ineligible for award.

The Plan, once approved, then becomes a part of the assembled contract.

Funding

As soon as it is known what funds are needed to make the award, you must contact the project manager and request that funds be obtained. When the document arrives, examine it to be sure that it has the correct fund citation, and is in the sufficient amount to make the award.**

Bonds

In a construction contract, some agencies issue a Notice of Award prior to the execution of the contract because Performance and Payment Bonds have to be submitted and approved prior to the issuance of a contract. In order to obtain the required bonds, the bonding company, the bank, or other lending institutions or persons underwriting bonds, require some evidence of a contract award before they will issue the necessary bonds. Most all financial institutions will accept the Federal Government Notice of Award document as sufficient evidence.

FAR 36.304

The Notice of Award must:

- Identify the invitation for bids;
- Identify the contractor's bid;
- State the award price;
- Advise the contractor that any required payment and performance bonds must be promptly executed and returned to the contracting officer;
- Specify the date of commencement of work, or advise that a notice to proceed will be issued;
- Include contract number, fund citation, and project title.

Contract completion dates are pre-established and based on an assumption of receipt of the bonds on the last day allowed for submission.***

For example: If a contractor is allowed 15 calendar days to submit his bonds, and a 180 day completion date is specified in the solicitation, the completion date is established by adding 15 days to the 180, for a total of 195 days. By consulting a calendar, a specific date can be established.

* Some agencies request that all offerors other than small businesses submit a plan with their offers.

** Some agencies may require that funds be available prior to the issuance of a solicitation.

*** Some agencies issue a Notice to Proceed which sets completion date based on date bonds are approved.

Contract Award

After awarding the contract and approving the performance and payment bonds, it is time to prepare the

Standard Form l442: Solicitation, Offer, and Award (for Construction, Alteration, or Repair)*

FAR 19.811-1(a)

in order to award the contract. This form is also used to award 8(a) construction contracts. Following the SF 1442 (See Exhibit 2-22), documents are sequenced in the CSI or UCF format being careful to incorporate:

- All amendments to the solicitation,
- Approved performance and payment bonds, and
- Contractor's approved subcontracting plan (if applicable).

FAR 19.811-1(b)(5)

FAR 19.811-3 (a)&(b)

For 8(a) construction contracts, SBA can grant exceptions to the Miller Act bonding requirements. The 8(a) contract must, however, contain Alternate 1 of both the SPECIAL 8(a) CONTRACT CONDITIONS clause and the SPECIAL 8(a) SUBCONTRACT CONDITIONS clause.

You are ready to submit this contract package to the contracting officer for signature. (See Exhibit 3-21 for preaward checklist.)

Most agencies forward the contract to the contractor with a transmittal letter establishing a date for the Preconstruction Conference. The letter of transmittal should identify the name and telephone number of the individual designated as the

- Contracting Officer's (Technical) Representative-CO(T)R,
- Administrative Contracting Officer-ACO, or
- Contracting Officer

if the contract administration functions are to be retained by the issuing office. <u>It is important that the contractor be informed at all times on the extent of authority of individuals contacted during the life of the contract.</u>

FAR 22.404-6(b)(6)

If an award is not made within 90 days after bid opening, any modification to a general wage determination, notice of which is published in the Federal Register before award, shall be effective for any resultant contract.

FAR 22.804-2(c)

Notify the Office of Federal Contract Compliance Programs of the Department of Labor within ten working days of the award of a construction contract.

* Or the SF 33, especially if the UCF format is used.

3.7 Performance and Payment Bonds

FAR 28.101-1(a)

A bid bond or guarantee shall be required only when a performance bond and payment bond is required. Performance and payment bonds are required for construction contracts exceeding $25,000 by the Miller Act. They are used in supply and service contracts only when necessary. Thus, the vast majority of bid bonds involve construction contracts.

Prior to issuing the contract, you must review and recommend approval of the performance and payment bonds. Chances are, you were the one that reviewed the bid bond during bid evaluation. Therefore, reviewing the performance and payment bonds is merely an extension of a task you have already performed.

FAR 28.001

A Bond means

> "a written instrument executed by a bidder or contractor (the principal), and a second party (the surety or sureties), to assure fulfillment of the principal's obligations to a third party (the obligee or Government), identified in the bond."

Bonds, therefore, are **three-way agreements** to assure payment by the surety to the Government, as a result of any loss sustained because the contractor does not meet its contractual obligations. A surety may be:

Surety

- an individual,
- a corporation, licensed to act as a surety, or
- a cosurety involving more than one surety acting jointly.

FAR 28.201(b)

Offerors may select type of surety unless prohibited by law or regulation.

Exhibit 3-13 shows the relationships if subcontractors are involved.

BOND AGREEMENTS		
Parties	**Under a General Contract**	**Under a Sub-Contract**
The Principal The Obligee The Surety	Contractor Government Surety	Subcontractor Contractor Surety

Exhibit 3-13

The performance and payment bonds may be obtained separately, or as a single package from the bonding company. It is customary that if a bonding company issues the bid bond, the same company will also issue the performance and payment bond.

Corporate Surety

FAR 28.202

If a corporate surety executes the bond, it must be listed in the Department of Treasury Circular 570, "Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and Acceptable Reinsuring Companies."* You, therefore, must review the Treasury Circular to determine if the firm is ① licensed, ② on the list and ③ if the bond amount is within the underwriting limit. The circular is published in the Federal Register in July of each year, and remains effective for a period of one year. Exhibit 3-14 provides a typical listing, and the type of information that the circular provides.

DEPARTMENT OF TREASURY CIRCULAR 570 TYPICAL LISTING

INTERNATIONAL CONSTRUCTION INSURANCE COMPANY

•Business Address: P. O. BOX l000, TOPEKA, KS 66601.

•Underwriting Limitation b/: $7,995,000.

•Surety Licenses c/: AL, AK, AZ, AR, CA, CO, CT, DE, DC, FL, GA, HI, ID, IL, IN, IA, KS, KY, LA, MD, MA, MI, MN, MS, MO, MT, NE, NV, NJ, NM, NC, ND, OH, OK, OR, PA, RI, SC, SD, TN, TX, UT, VT, VA, WA, WV, WI, WY.

•Incorporated in: KANSAS.

Exhibit 3-14

Occasionally, it is necessary for the surety to obtain co-sureties on large Federal construction projects because of limits established by the U.S. Treasury Department on the maximum amount of single contract bonds the surety is authorized to execute.

> **From this example**, you could not approve a bond which was issued in excess of $7,995,000 by the International Construction Insurance Company without first obtaining coinsurance or reinsurance for the sum of that portion which exceeds the $7,995,000.

Standard Form 273 for the performance bond, and SF 274 for the payment bond are used for this purpose. Exhibit 3-15 shows a copy of SF 273, Reinsurance Agreement for Miller Act Performance Bond. SF 274 is very similar.

* An electronic bulletin board is available from the Department of Transportation.

REINSURANCE AGREEMENT FOR A MILLER ACT PERFORMANCE BOND

(See Instructions on reverse)

FORM APPROVED OMB NO.

Public reporting burden for this collection of information is estimated to average 25 minutes per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0045), Washington , DC 20503

1. DIRECT WRITING COMPANY*	**1A. DATE DIRECT WRITING COMPANY EXECUTES THIS AGREEMENT**
2. REINSURANCE COMPANY*	**1B. STATE OF INCORPORATION**

3. DESCRIPTION OF CONTRACT		**4. DESCRIPTION OF BOND**	
3A. AMOUNT OF CONTRACT		**4A. PENAL SUM OF BOND**	
3B. CONTRACT DATE	**3C. CONTRACT NUMBER**	**4B. DATE OF BOND**	**4C. BOND NUMBER**
3D. DESCRIPTION OF CONTRACT		**4D. PRINCIPAL**	
3E. CONTRACTING AGENCY		**4E. STATE OF INCORPORATION**	

AGREEMENT:

(a) The Direct Writing Company named above is bound as surety to the United States of America on the performance bond described above, wherein the above described is the principal, for the protection of the United States on the contract described above. The contract is for the construction, alteration, or repair of a public building or public work of the United States under the ACT of August 24, 1935, as amended (40 U.S.C. 270a - 270e), known as the Miller Act. The Direct Writing Company has applied to the Reinsuring Company named above to be reinsured and counter secured in the amount shown opposite the name of the Reinsuring Company (referred to as the "Amount of the Reinsurance"), or for whatever amount shown opposite the name of the Reinsuring Company (referred to as the "Amount of the Reinsurance"), or for whatever amount less than the "Amount of this Reinsurance" the Direct Writing Company is liable to pay under or by virtue of the performance bond.

(b) For a sum mutually agreed upon, paid by the Direct Writing Company to the Reinsuring Company which acknowledges its receipt, the parties to this Agreement covenant and agree to the terms and conditions of this agreement.

TERMS AND CONDITIONS

(a) The purpose and intent of this agreement is to guarantee and indemnify the United States against loss under the performance bond to the extent of the "Amount of this Reinsurance", or any sum less than the "Amount of this Reinsurance" that is owing and unpaid by the Direct Writing Company to the United States under the performance bond.

(b) If the Direct Writing Company fails to pay any default under the performance bond equal to or in excess of the "Amount of this Reinsurance", the Reinsuring Company covenants and agrees to pay to the United States, the obligee on the performance bond, the "Amount of this Reinsurance". If the Direct Writing Company fails to pay the United States the full amount of the default, or so much thereof that is not paid to the United States by the Direct Writing Company.

(c) If there is a default on the performance bond for the "Amount of Reinsurance", or more, the Reinsuring Company and the Direct Writing Company hereby covenant and agree that the United States may bring suit against the Reinsuring Company for the "Amount of this Reinsurance", or, in the case the amount of the default is for less than the "Amount of the Reinsurance", for the full amount of the default.

WITNESS:

The Direct Writing Company and the Reinsuring Company, respectively, have caused this agreement to be signed and impressed with their respective corporate seals by offices possessing power to sign this instrument, and to be duly attested by officers empowered thereto, on the day and date above written opposite their respective names.

***Items 1, 2 4D- Furnish legal name, business address and ZIP Code.**

(Over)

Facsimile

Standard Form 273 (Rev. 1-90)
Prescribed by GSA - FAR (48 CFR)

Exhibit 3-15

5. DIRECT WRITING COMPANY		
5A. (1) SIGNATURE	2. ATTEST: SIGNATURE	CORPORATE SEAL
5B. NAME AND TITLE (Typed)	2. NAME AND TITLE (Typed)	
6. REINSURING COMPANY		
6A. (1) SIGNATURE	2. ATTEST: SIGNATURE	CORPORATE SEAL
6B. NAME AND TITLE (Typed)	2. NAME AND TITLE (Typed)	

INSTRUCTIONS

This form is to be used in cases where it is desired to cover the excess of a Direct Writing Company's underwriting limitation by reinsurance instead of co-insurance on Miller Act performance bonds running to the United States. See FAR (48 CFR) 28.202-1 and 53.228(h).

Execute and file this form as follows:

Original and copies (as specified by the bond-approving officer), signed and sealed, shall accompany the bond or be filled within the time period shown in the bid or proposal.

One carbon copy, signed and sealed, shall accompany the Direct Writing Company's quarterly Schedule of Excess Risks filed with the Department of the Treasury.

Other copies may be prepared for the use of the Direct Writing Company and the Reinsuring Company. Each Reinsuring Company should use a separate form.

FACSIMILE STANDARD FORM 273 (REV. 8-90) BACK

Exhibit 3-15 (Continued)

Performance Bond

A performance bond secures performance and fulfillment of the contractor's obligations under the contract. It provides protection to the Government in that it guarantees that the contract will be performed, and the structure will be built in accordance with the contract.

FAR 53.301-25(a)(1)

The bond customarily provides coverage during the term of the contract and "during the life of any guaranty required under the contract." If a standard commercial warranty provides more benefits than the standard clause, the commercial warranty will prevail. **Standard Form 25, Performance Bond**, on which the bond is executed, provides that the:

- bond shall apply to all contract modifications, and
- the life of the bond must include all extensions of time.

SF 25 is very similar to SF 24, Bid Bond, except that the section entitled "Conditions" refers to performance. See Exhibit 3-16.

The penal amount of performance bonds must be 100 percent of the original contract price, unless the Contracting Officer determines that a lesser amount would be acceptable and would afford an adequate protection of the Government. The performance bond provides the contractor with a

- financial guaranty for the work, and a
- method of freeing, not only his working capital and other assets which might otherwise be tied up, but also other forms of security such as certified checks, retainage, or deposits.

FAR 28.102-2(a)(2)

The Government may secure additional protection (e.g. for reprocurement costs) by directing the contractor to increase the penal amount.

Payment Bond

The payment bond

- acts primarily for the protection of third parties to the contract and
- guarantees payment for labor and materials used or supplied in the performance of the construction project.

The Miller Act gives laborers and mechanics, subcontractors, and material vendors who deal directly with the prime contractor, the right to sue on the prime contractor's payment bond if payment is not received in full within 90 days after the date on which the last of the labor was done, or the last of the materials were furnished.
The payment protection of the Miller Act extends no further than:

- first-tier subcontractors and material suppliers, and
- second-tier subcontractors and suppliers.

In addition, it means that the second-tier subcontractor must deal with the first-tier subcontractor. In other words, workers who have not been paid

PERFORMANCE BOND (See Instructions on Reverse)	DATE BOND EXECUTED (Must be same or later as date of contract.)	FORM APPROVED OMB NO.

Public reporting burden for this collection of information is estimated to average 25 minutes per response, include the time for reviewing instructions, researching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretary (VRS), Office of Federal Acquisition Policy, GSA, Washington, DC. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0045), Washington, DC. 20503.

PRINCIPAL (Legal name and business address)	TYPE OF ORGANIZATION ("X" answer) ☐ INDIVIDUAL ☐ PARTNERSHIP ☐ JOINT VENTURE ☐ CORPORATION STATE OF INCORPORATION
SURETY(IES) (Name(s) and business address(s)	PENAL SUM OF BOND MILLION(S) / THOUSAND(S) / HUNDRED(S) / CENTS CONTRACT DATE / CONTRACT NO.

OBLIGATION:
We, the Principal and Surety(ies), are firmly bound to the United States of America (hereinafter called the Government) in the above penal sum. For payment of the penal sum, we bind ourselves, our heirs, executors, administrators, and successors, jointly and severally. However, where the Sureties are corporations acting as co-sureties, we, the Sureties, bind ourselves in such sum "jointly and severally" as well as "severally" only for the purpose of allowing a joint action or actions against any or all of us. For all other purposes, each Surety binds itself, jointly and severally with the Principal, for the payment of the sum shown opposite the name of the Surety. If no limit of liability is indicated, the limit of liability is the full amount of the penal sum.

CONDITIONS:
The principal has entered into the contract identified above.

THEREFORE:
The above obligation is void if the Principal -
(a)(1) Performs and fulfills all the undertakings, covenants, terms, conditions, and agreements of the contract during the original terms of the contract and any extensions there of that are granted by the Government, with or without notice to the Surety(ies), and during the life of any guarantee required under the contract, and (2) performs and fulfills all of the undertakings, covenants, terms, conditions, and agreement of any and all duly authorized modifications of the contract that hereafter are made. Notice of those modifications to the Surety(ies) are waived.

(b) Pay to the Government the full amount of the taxes imposed by the Government, if the said contract is subject to the Miller Act, (40 U.S.C. 270a - 270e), which are collected, deducted, or withheld form wages paid by the Principal in carrying out the construction contract with respect to which this bond is furnished.

WITNESS:
The Principal and Surety(ies) executed this performance bond and affixed their seals on the above date.

PRINCIPAL

SIGNATURE(S):	1. (Seal)	2. (Seal)	3. (Seal)	Corporate Seal
NAME(S) & TITLE(S) (Type)	1.	2.	3.	

INDIVIDUAL SURETY(IES)

SIGNATURE(S):	1. (Seal)	2. (Seal)
NAME(S) & TITLE(S) (Type)	1.	2.

CORPORATE SURETY(IES)

SURETY A	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(S) & TITLE(S) (Type)	1.	2.		

Facsimile

STANDARD FORM 25 (Rev 1-90)
Prescribed by GSA - FAR (48(CFR)93.220)

Exhibit 3-16

CORPORATE SURETY(IES) (Continued)

SURETY B	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		
SURETY C	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		
SURETY D	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		
SURETY E	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		
SURETY F	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		
SURETY G	NAME & ADDRESS		STATE OF INC.	LIABILITY LIMIT $	Corporate Seal
	SIGNATURE(S):	1.	2.		
	NAME(s) & TITLE(S) (Typed)	1.	2.		

INSTRUCTIONS

1. This form is authorized for use in connection with Government contracts. Any deviation form this form will require the written approval of the Administrator of General Services.

2. Insert the full legal name and business address of the Principal in the space designated "Principal" on the face of the form. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representative is not a member of the firm, partnership, or joint venture, or an officer of the corporation involved.

3. (a) Corporations executing the bond as sureties must appear on the Department of the Treasury's list of approved sureties and must act within the limitation listed therein. Where more than one corporate surety is involved, their names and addresses shall appear in the spaces (Surety A, Surety B, etc.) headed "CORPORATE SURETY(IES)." In the space designated "SURETY(IES)" on the face of the form, insert only the letter identification of sureties.

(b) Where individual sureties are involved, a completed Affidavit of Individual Surety (Standard Form 28), for each individual surety shall accompany the bond. The Government may require the surety to furnish additional substantiating information concerning its financial capability.

4. Corporations executing the bond shall affix their corporate seals. Individuals shall execute the bond opposite the word "Corporate Seals", and shall affix an adhesive seal if executed in Maine, New Hampshire, or any other jurisdiction requiring adhesive seals.

5. Type the name and title of each person signing this bond in the space provided.

Facsimile

STANDARD FORM 25 BACK (Rev 1-90)
Prescribed GSA - FAR (48(CFR) 93.220)

Exhibit 3-16 (continued)

INSTRUCTIONS FOR COMPLETING SF 25, PERFORMANCE BOND

Block #1: Enter date that shows the bond was executed on or after award of the contract.

Block #2: Enter company principal's name and address which must correspond to signature on the contract.

Block #3: Provides 4 blocks only one of which may be checked.

(a) Individual: A contract with an individual shall be signed by the individual in his or her own name. A contract with an individual doing business as a firm shall be signed by that individual and will ordinarily take the following form:

JOHN DOE SIGNED

_____

JOHN DOE, an individual, doing business as THE JOHN DOE COMPANY

(b) Partnership: Contracts entered into with partnerships shall be executed in the partnership name. The contract need be signed by only one partner, **PROVIDED** the authority of the particular partner to bind the partnership has been established. The evidence required to establish the authority of a particular partner to bind the partnership is for the determination of the Contracting Officer. A list of all members of the partnership shall be forwarded with the signed contract.

(c) Joint Venture: Contracts with joint ventures may involve a corporation and a partnership, a partnership and an individual, or other combinations. In these cases you must be sure that the contract is signed by each participant in the joint venture in the manner indicated above for each type of participant. **When a corporation is participating, a certificate from its secretary stating that the corporation is authorized to participate in the joint venture shall be issued to the Contracting Officer.**

(d) Corporation: Contracts with corporations shall be executed in the corporate name, followed by the word "by" after which the person who has been authorized to execute the contract on behalf of the corporation shall sign his name, with the designation of his official capacity. The evidence required to establish the authority of a particular person to bind a corporation is for the determination of the Contracting Officer.

Block #4: Enter surety's name and address. Consult the Treasury Department Circular 570 for the listing of the name and the specific dollar underwriting limitation.

Block #5: Enter the Penal Sum of the Bond. Compare the penal sum of the bond with the contract price for sufficiency. Then compare the penal sum with that listed in Circular 570. If the amount exceeds the underwriting limitation a Reinsurance Agreement (SF 273 and 274) for the amount over the underwriting dollar limitation must also be submitted.

Blocks #6 7 and 8: All signatures, including signatures of witnesses, shall be legible, in reproducible ink, and shall have the name typed below the signature. Seals must be properly executed. The instructions contained on the back of the form must be complied with.

can look to the bonding company to force the contractor to pay against the bond. **Standard Form 25A, Payment Bond**, is very similar to SF 24 and SF 25 except that the section entitled "Conditions" refers to payment rather than bid guarantee or performance.

Individual Surety

Reviewing performance and payment bonds is generally a routine matter, unless you are reviewing bonds in the form of individual sureties. Submission of individual sureties is a common practice in construction contracts, and it requires a great deal of care during the review process to assure that the pledged assets provide sufficient protection to the Government. Basic guidance for reviewing individual sureties is contained in Exhibit 3-17.

FAR 28.203

GUIDANCE IN REVIEWING INDIVIDUAL SURETIES

- Contracting officer shall determine the acceptability of individuals proposed as sureties and ensure that surety's pledged assets are acceptable and sufficient to cover bond obligation.
- An individual surety must execute the bond, and the unencumbered value of the assets (which is exclusive of all outstanding pledges for other bond obligations) which are pledged by the individual surety, must equal or exceed the penal amount of each bond.
- One individual surety is adequate support for a bond, provided the unencumbered value of the assets pledged, equal or exceed the amount of the bond. An offeror may submit up to three individual sureties for each bond, providing the sum of those submitted equals or exceeds the amount of the bond required.
- If the contracting officer determines that an individual surety on a performance or payment bond is unacceptable (See Exhibit 3-18), the offer shall be rejected as **nonresponsible**, except as provided in Exhibit 3-6. A finding of nonresponsibility based on the rejection need not be referred to the Small Business Administration for a competency review.
- However, a contractor submitting an unacceptable individual surety, in satisfaction of a performance or payment bond requirement, may be permitted a reasonable time, as determined by the contracting officer, to substitute an acceptable surety for a surety which was previously determined to be unacceptable.
- Contracting officers shall obtain the opinion of legal counsel as to the adequacy of the documents pledging the assets, prior to accepting the bid guarantee and payment and performance bonds.
- Any evidence of fraud or criminal activity shall be referred to the appropriate agency official in accordance with agency procedures.

Exhibit 3-17

The surety shall execute SF 28, Affidavit of Individual Surety. See Exhibit 3-18.

The **value of the pledged asset(s)** must be equal to, or greater than, the aggregate penal amounts of the bonds required by the solicitation and may be provided by one of the following methods:

- An escrow account with a Federally funded institution which is established in the name of the contracting activity with terms and conditions acceptable to the Contracting Officer. The account allows the Government to withdraw monies up to the amount of the account.

- A lien on real property.

FAR 28.203-3

If **real property** is pledged, the individual surety must provide:

- Evidence of title prepared by the title company;
- Evidence of the amount due under any encumbrance; and
- Copy of current tax assessment.

During the course of the procurement, the contracting officer may be requested, in writing, to:

- make a substitution of assets, and/or
- release the security interest on an individual surety's assets.

You must analyze these requests thoroughly and determine that there will be no negative impact on the Government's interest before recommending action to the contracting officer. Some agencies require higher level approval of individual sureties.

FAR 52.228-11

The PLEDGES OF ASSETS clause for individual sureties must be inserted in all solicitations requiring the submission of bid guarantees, and performance and payment bonds.

AFFIDAVIT OF INDIVIDUAL SURETY
(See instructions on reverse)

FORM APPROVED OMB NO.

Public reporting burden for this collection of information is estimated as average 3 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition Policy, GSA, Washington, DC. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (90000-0001), Washington, DC. 20503.

STATE OF

COUNTY OF

SS

I, the undersigned, being duly sworn, depose and say that I am: (1) the surety to the attached bonds; (2) a citizen of the United States; and of full age and legally competent. I also depose and say that, concerning any stocks or bonds included in the assets listed below, that there are no restrictions on the resale of these securities pursuant to the registration provisions of Section 5 of the Securities Act of 1933. I recognize that statements contained herein concern a matter within the jurisdiction of an agency of the United States and the making of a false, fictitious or fraudulent statement may render the maker subject to prosecution under Title 18, United States Code Sections 1001 and 4994. This affidavit is made to induce the United States of America to accept me as surety on the attached bond.

1. NAME (First, Middle, Last) (Type or Print)

2. HOME ADDRESS (Number, Street, City, State, Zip Code)

3. TYPE AND DURATION OF OCCUPATION

4. NAME AND ADDRESS OF EMPLOYER (If self-employed, so state)

5. NAME AND ADDRESS OF INDIVIDUAL SURETY BROKER USED (If any) (Number, Street, City, State, Zip Code)

6. TELEPHONE NUMBER

HOME -
BUSINESS -

7. THE FOLLOWING IS A TRUE REPRESENTATION OF THE ASSETS I HAVE PLEDGED TO THE UNITED STATES IN SUPPORT OF THE ATTACHED BOND:

A) Real estate (include a legal description, street address and other identifying description; the market value; attach supporting certified documents including recorded lien; evidence of title and the current tax assessment on the property. For market value approach, also provide a current appraisal.)

B) Assets other than real estate (describe the assets, the details of the escrow account, and attach certified evidence thereof).

8. IDENTIFY ALL MORTGAGES, LIENS, JUDGEMENTS, OR ANY OTHER ENCUMBRANCES INVOLVING SUBJECT ASSETS INCLUDING REAL ESTATE TAXES DUE AND PAYABLE.

9. IDENTIFY ALL BONDS, INCLUDING BID GUARANTEES, FOR WHICH THE SUBJECT ASSETS HAVE BEEN PLEDGED WITHIN 3 YEARS PRIOR TO THE DATE OF EXECUTION OF THIS AFFIDAVIT.

DOCUMENTATION OF THE PLEDGED ASSET MUST BE ATTACHED.

10. SIGNATURE

11. BOND AND CONTRACT TO WHICH THIS AFFIDAVIT RELATES (When appropriate)

12. SUBSCRIBED AND SWORN TO BEFORE ME AS FOLLOWS:

a) DATE OATH ADMINISTERED
MONTH DAY YEAR

b) CITY AND STATE (Or other jurisdiction)

c) NAME AND TITLE OF OFFICIAL ADMINISTERING OATH (Type or Print)

d) SIGNATURE

e) MY COMMISSION EXPIRES

STANDARD FORM 28 (REV. 1-90)
Facsimile - prescribed by GSA - FAR (48 CFR) 53.228(a)

Exhibit 3-18

INSTRUCTIONS

1. Individual sureties on bonds executed in connection with Government contracts, shall complete and submit this form with the bond. (See 48 CFR 28.203, 53.228(e)). The surety shall have the completed form notarized.

2. No corporation, partnership, or other unincorporated associations or firms, as such, are acceptable as individual sureties. Likewise members of a partnership are not acceptable as sureties on bonds which partnership or associations, or any co-partner or member thereof is the principal obligor. However, stockholders or corporate principals are acceptable provided (a) their qualifications are independent of their stockholdings or financial interest therein, and (b) that the fact is expressed in the affidavit of justification. An individual surety will not include any financial interest in assets connected with the principal on the bond which this affidavit supports.

3. United States citizenship is a requirement for individual sureties. However, only a permanent resident of the place of execution of the contract and bond is required for individual sureties in the following locations - any foreign country; the Commonwealth of Puerto Rico; the Virgin Islands; the Canal Zone; Guan; or any other territory or possession of the United States.

4. All signatures on the affidavit submitted must be originals. Affidavits bearing reproduced signatures are not acceptable. An authorized person shall sign the bond. Any person signing in a representative capacity (e.g., an attorney-in-fact) must furnish evidence of authority if that representatives not a member of a firm, partnership, or joint venture, or an officer of the corporation involved.

STANDARD FORM 28 (Rev. 1-90)
Facsimile

Exhibit 3-18 (continued)

Some individuals may be excluded from acting as a surety on bonds, as detailed in Exhibit 3-19.

EXCLUSION OF INDIVIDUAL SURETIES

FAR 28.203-7

An individual may be excluded from acting as a surety on bonds as follows:

- Failure to fulfill the obligations under any bond.
- Failure to disclose all bond obligations.
- Misrepresentation of the value of available assets or outstanding liabilities.
- Any false or misleading statement, signature or representation on a bond or affidavit of individual suretyship.
- Any other cause affecting responsibility as a surety of such serious and compelling nature as may be determined to warrant exclusion.
- Appearance on the listing entitled “List of Parties Excluded From Federal Procurement or Non-Procurement Programs".

Exhibit 3-19

Optional Securities

FAR 28.204

The contractor may deposit any of the following types of security* instead of furnishing corporate or indivdual sureties on performance and payment bonds:

- United States bonds or notes.
- Certified or cashier's checks.
- Bank drafts, money orders, or currency.

Exhibit 3-20 is a checklist that you can use to double check that requirements related to reviewing bonds have been completed.

* See the Office of Federal Procurement Policy Letter No. 91-4, Use of Irrevocable Letters of Credit, dated November 8, 1991.

BID NO.	**CONTRACT BONDS CHECKLIST**	CONTRACT NO.

INSTRUCTIONS:
Review each item with corresponding part of bond and indicate either a " "or a "n/a" (not applicable) for each item.
File completed form in appropriate contract file.

Buyer Date Buyer Date	BID	PAYMENT	PERFORMANCE		BID	PAYMENT	PERFORMANCE
1. Bond executed on correct form				12. Principal signatures A. Individual - Signature identical to that on bid			
2. Date of execution entered A. Bid bond - Date not later than date of bid opening				B. Partnership - Signature of partner			
				C. Corporation - Signature of officer or agent			
B. Payment and Performance Bond - Date not prior to date of contract				D. Corporation - Seal or scroll impressed or affixed			
3. Name of principal entered				13. Name and address of surety entered in the appropriate space			
4. Name of principal identical with name on contract or bid				14. Surety signatures A. Bond signed for surety company			
5. Type of organization space completed				B. Power of Attorney by surety giving authority to the agent to execute bonds in the appropriate dollar amount			
(If corporation, state of incorporation entered)							
6. Corporate Surety A. Name of surety and state in which incorporated entered				15. Impression of the corporate seal of the surety affixed			
B. Surety listed on current list of approved sureties for appropriate amount				16. Rate and amount of the premium entered			
7. Individual sureties (1, 2 or 3 allowed) A. FAR 28.203 complied with				17. Erasures, corrections, or other material alterations, if any, initialed by each person signing bond			
B. SF28, "Affidavit of Individual Surety," executed correctly by each surety and submitted with bonds							
8. Penal sum entered				18. Bond disposition A. Bid bonds - original for contract file			
				B. All other bonds (1) original for finance, contract admin., etc.			
9. Penal sum is sufficient amount							
(Penal sum is in agreement with bond requirement of bid or contract)				(2) duplicate for contract file			
10. Date of bid or contract entered				19. Remarks			
11. Bid or contract number entered (Entry identical with number on bid or contract)							

Exhibit 3-20

OFFICIAL CONTRACT RECORD INDEX	CONTRACT NUMBER
Construction Contracts	
_____ Sealed Bids _____ Negotiated	

PRE-AWARD RECORDS CHECKLIST

TAB NO. OR N/A	ITEM	FILE NO.		TAB NO. OR N/A	ITEM	FILE NO.
	Acquisition Planning Documentation Request for Contractual Action.				Solicitation document including specs and drawings or reference to filing location, amendments.	
	Contractibility/Constructability.				Plan Holders List.	
	Funding Document or Evidence of availability of funds.				Pre-bid inquiries/bidders correspondence.	
	Set-Aside Determination.				Copy of each bid or proposal received.	
	J&As, D&Fs and associated documentation.				Administrative Determinations - Late Bids, Bid irregularities.	
	Detailed Government Estimates to include documentation of effect of amendments.				Notification of Determination (Bidders/Offerors).	
					Bid Verification Documentation.	
	Synopsis Documentation.				Representations and Certifications.	
	Davis-Bacon Wage Rates.				Pre-Award Survey Documentation/ Responsibility/Non-responsibility Determination.	
	Processing of Specifications and Drawings (review and report).				SBA Certificate of Competency Documentation.	
	Contracting Officer Approval and/or Experience Clauses of Property Specification, etc.				Source Selection Documentation.	
					Determination to convert to negotiated action.	
	Contracting Officer Approval of Proprietary Specification.				SF 1411 with supporting cost or pricing data.	
	Bidders List.				Disclosure Statement.	
	Pre-Invitation Notice.				Request for DCAA Audit or approved waiver of audit.	
	Contract Data Requirements.				Audit Report.	

Exhibit 3-21

OFFICIAL CONTRACT RECORD INDEX	CONTRACT NUMBER
Construction Contracts	

PRE-AWARD RECORDS CHECKLIST

TAB NO. NO. N/A	ITEM	FILE NO.			ITEM	
	Pre-Negotiation price/cost analysis/objective (over $100.00).				Obligation Authority if not previously provided.	
	Price Negotiation Memorandum/ Post Business Clearance.				Required approval of award and evidence of legal review.	
	Certification of Current Cost and Pricing Data.				Notice of Award.	
					Complete Contract Award Document.	
	Price Reasonableness Determination (Sealed Bids).				Copy of all modifications (to be kept with contract award document).	
	EEO Compliance Review.					
	Subcontracting Plan.				P00000 __ P00000 __ P00000 __	
	Miscellaneous Correspondence prior to award.					
					P00000 __ P00000 __ P00000 __	
					P00000 __ P00000 __ P00000 __	
					Synopsis of Award.	
					Letter to OFCCP.	
					Letters to DCAA forwarding Negotiation Record.	
					Debriefing Documentation.	
					Approval of Performance and Payment Bonds.	
					Letters of Authenticity.	
					Insurance Documentation.	
					Contract Distribution Record.	

Exhibit 3-21(continued)

CHAPTER 4

CONTRACT ADMINISTRATION PLANNING

THE CONSTRUCTION PLANNING STAGE

It is a typical day in an ACO office. The phone has been ringing off the hook, several COR's are waiting to see someone, the weather man is predicting a storm, (Is the roof in place on that new building project?), and the Contracting Officer, Bill Gibson just walked in and handed over a new contract to administer. "Thanks a lot, Bill." Greg said facetiously, "I don't need another contract to administer to add to all of the others I have on my desk." He glanced down at the contract and recognized it as the "big one" that he had heard about. "So this is the Contracts Training Center Project that everyone is talking about!" "Yup! It has some additive bid items awarded, and has CQC provisions," Bill countered as he went out the door. "See you later!"

Greg is anxious to find out more about the contract, but doesn't have time to go over it right now with the phones ringing and people waiting to see him, but he couldn't help wonder. How much effort it is going to take? How many people will have to be delegated to the project? He hopes someone may be available to assist him, as he is understaffed. He wondered who might be available to be on the team.

He put the contract in the active file drawer after entering it into the tracking system. The tracking and monitoring system will remind him on Monday morning to start preparations by reviewing the contract and all of the information at hand. "Will a Preconstruction Conference be required? There's that phone ringing again! If I could only do away with these interruptions!"

The stage has been set for developing a strategy that must take place for effective administration of a construction contract. What kind of strategy is needed? "Perhaps I should ask the Contracting Officer to assign someone to assist me," he thought to himself.

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to

Overall: Develop a contract administration plan, instruct personnel on their roles and responsibilities, develop a tracking system and conduct a Preconstruction Conference.

Individual:

4.1 Determine the extent of performance monitoring required based on:

- Review of the contractor's past performance.
- CQC requirement specified in the contract.
- Analysis of experience of the contractor.
- Availability of resources.

4.2 Establish contract administration team.

- Determine which administration functions will be delegated, and to whom.
- Advise technical representatives of their roles, responsibilities and limitations.

4.3 Develop tracking/monitoring systems.

- Control correspondence, modifications, progress payments, funding, payrolls, insurance, labor provisions, contractor performance, inspection and contractor submissions.

4.4 Issue planning forms and notices.

- Provide the contractor with required forms, notice of names, roles and limitations of authority of government personnel.

4.5 Prepare for the Preconstruction Conference.

- Determine if a preconstruction conference is to be held, and if so, establish a date.
- Identify any approvals or submissions required prior to the conference.
- Plan and prepare the agenda for the conference.
- Identify and notify attendees.

4.6 Conduct the Preconstruction Conference.

- Present all general information needed to enable the contractor to perform.
- Identify and discuss all special working conditions.
- Present the Government's position on each issue.
- Prepare minutes of the meeting.

INTRODUCTION FOR CONTRACT ADMINISTRATION PLANNING

When Does Planning Begin?

Planning for the administration of the construction project does not begin upon award of the construction contract, but rather

- during the time that the project itself was being planned,
- during the acquisition planning stage, and
- during the design phase.

Who Will Administer?

A decision as to whom to assign contract administration duties is a primary concern. Possibilities include:

- contracts office to administer on a "cradle to grave" basis,
- separate contract to provide contract administration,
- surveying activity,
- another agency to administer, or
- a combination of the above.

How Much Administration is Necessary?

You have only to examine your contract to find the extent of administration that is required:

- degree of inspection and acceptance
- type of performance schedule
- payments, etc.

Now is the time to develop sound contract administration strategy, focusing on the relationship to be established between the Government and the contractor.

Basic Goal

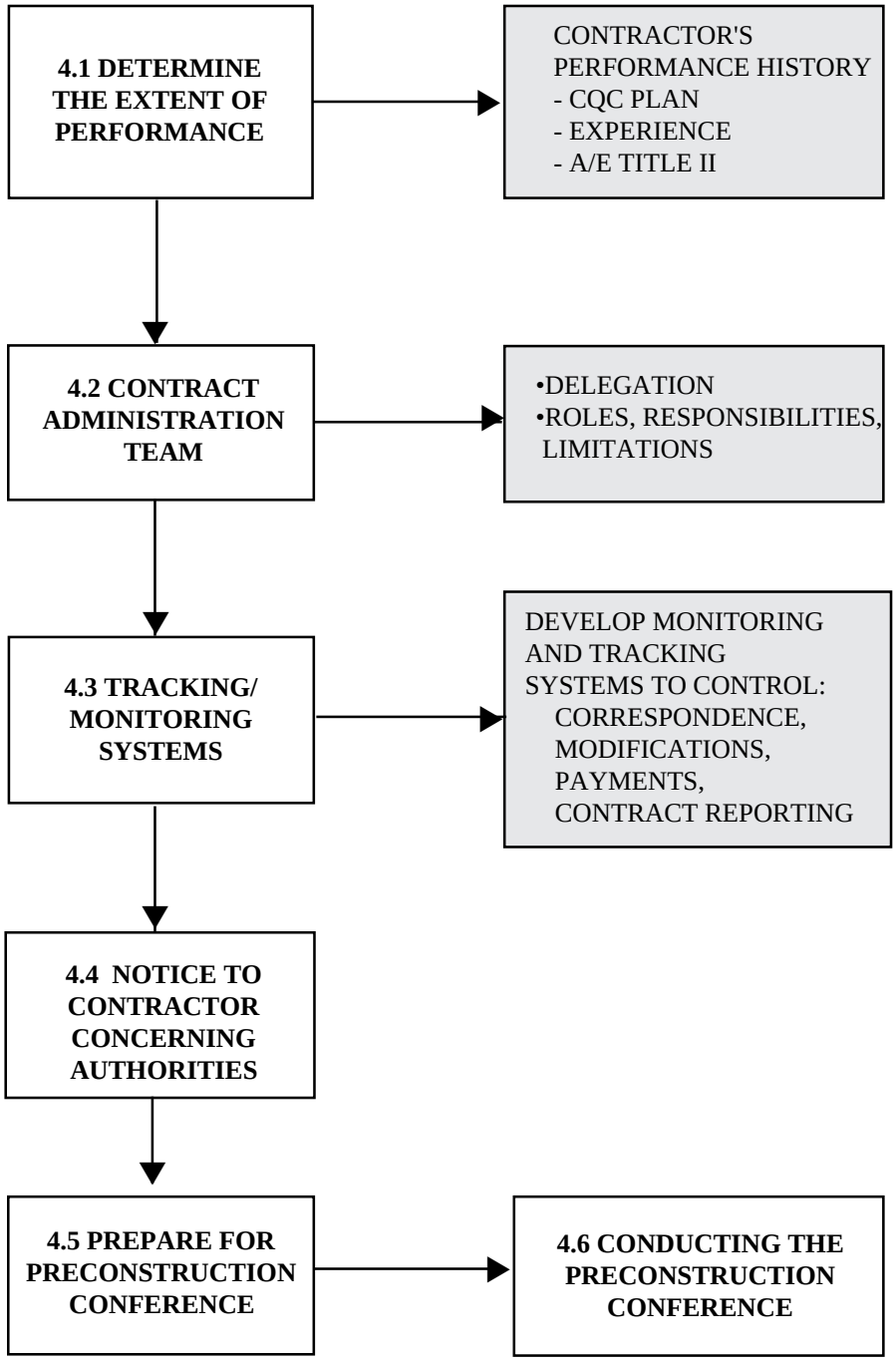
The basic goal of contract administration is to assure that the

1. Government receives quality and timely products or services that conform to the specification, and the
2. Contractor is compensated, on time, for its efforts.

Steps in Performance:

The steps in planning for contract administration are charted on the next page. Following the flowchart, each step is discussed in turn.

STEPS IN
CONTRACT ADMINISTRATION PLANNING



STEPS IN CONTRACT ADMINISTRATION PLANNING

4.1 Determine Extent of Performance Monitoring

After the contract has been awarded, it is time to formalize planning for contract administration into an integrated team effort. Continuing coordination is required among the

contracting office	engineering
quality assurance	audit
legal	other key personnel.

When initial contract administration plans are being formulated, one of the first things that you are concerned with, is the impact the contract may have on your workforce in terms of effort. Some of these concerns are listed in Exhibit 4-1and then discussed in further detail.

IMPACT ON WORKFORCE

What clauses are contained in the contract?

How much inspection will be required?

What kind of reputation does the contractor have in performance?

What kind and how much experience does the contractor have?

What is the duration of the project?

How complex is the project?

Are field consultation services available?

Has a Construction Management or CM contract been issued?

Exhibit 4-1

Obligations of the Parties

The requirements and specific obligations of the Government and the contractor are established and governed by the contract as contained in specific clauses, the plans, and specifications. The executed contract document expresses what was agreed to. If one party has an intention that conflicts with what is reflected in the contract language, that intention normally has no legal effect.

> The words of the contract are taken to mean what they actually say, not what one of the parties meant them to say.

Quality Control Clauses

To determine what a contract says regarding quality turn to the clauses in the contract. Exhibit 4-2 lists the standard FAR clauses that deal with quality control in a construction contract. Your agency in its supplement to the FAR may also require the use of certain agency standard clauses.

CLAUSES DEALING WITH QUALITY CONTROL

FAR	TITLE
52.236-3	Site Investigation and Conditions Affecting the Work
52.236-5	Material and Workmanship
52.236-6	Superintendence by the Contractor
52.236-7	Permits and Responsibilities
52.236-8	Other Contracts
52.236-9	Protection of Existing Vegetation, Structures, Equipment, Utilities, and Improvement
52.236-10	Operations and Storage Areas
52.236-11	Use and Possession Prior to Completion
52.236-12	Cleaning Up
52.236-21	Specifications and Drawings for Construction
52.246-12	Inspection of Construction

Exhibit 4-2

Special Clauses

In addition to standard clauses, there are special clauses in the contract, which are created by individual agencies. They are appropriate for use in particular contracting circumstances. They should be reviewed thoroughly to determine the monitoring effort required. Examples of three agency specific clauses of the kind described are found in

- Exhibit 4-3, entitled “Contractor Quality Control”;
- Exhibit 4-4, entitled “Submittal Register”; and
- Exhibit 4-5, entitled “Network Analysis System".

These clauses provides specifics on quality control. Although the details may vary, most agencies follow the basic guidelines presented in these examples. Quality requirements can also be found in the technical specifications.

CONTRACTOR QUALITY CONTROL

A special clause (often referred to as "CQC") which requires the contractor to:

a. Establish a separate quality control organization headed by a construction manager or civil engineer whose sole responsibility is to ensure compliance with the contract plans and specifications. This person is to report directly to the contractor's top management. Other key personnel required are mechanical and electrical personnel, a registered land surveyor, and laboratory technicians. This clause also establishes minimum qualifications expressed in terms of education and experience.

b. Furnish to the Government a Quality Control Plan within ____days after receipt of the Notice to Proceed or Notice of Award and prior to the start of construction. In this particular clause, the plan must include, as a minimum:

- A description of the quality control (QC) organization, including a chart showing authority and acknowledgment that the CQC staff shall implement a "three phase control system" for all aspects of the work specified and shall report to the project manager or someone higher in the contractor's organizations.

- The names, qualifications, duties, responsibilities, and authorities of each person assigned a QC function.

- A copy of the letter to the QC manager signed by an authorized official of the firm, which describes the responsibilities and authorities of each person assigned a QC function.

- Procedures for scheduling and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents.

- Control testing procedures for each specific test.

- Reporting procedures, including proposed formats.

c. Maintain records of all inspections and tests performed which must be submitted on a daily basis to the Contracting Officer, with no more delay than ____ working day.

NOTE: Your agency CQC requirements may differ in specific requirements.

Exhibit 4-3

SUBMITTAL REGISTER

This special clause requires that the contractor prepare a listing of all submittals (shop drawings, manufacturer's literature, certificates of compliance, material samples, etc.) for review or approval action. This listing is to be prepared and submitted for a joint review with the Contracting Officer prior to commencing construction operations. The submittals are categorized as either for "review" or "approval" and are subject to final approval by the CQC representative and/or the government, respectively. These categories are found in the technical provisions of the general paragraphs and are subject to the procedures of the Specifications and Drawings for Construction clause and the Material and Workmanship clause.

Exhibit 4-4

NETWORK ANALYSIS SYSTEM

This special clause requires that a preliminary schedule defining the contractor's planned operations during the first 60 calendar days after Notice to Proceed (NTP) be submitted within 10 days (varies by agency) after Notice of Award. The Contractor's general approach for the balance of the project must also be indicated. Cost of activities expected to be completed or partially completed before submission and approval of the whole schedule should be included.

- The complete network analysis system, consisting of the network mathematical analysis and network diagrams, are to be submitted within __ days after receipt of NTP.
- Detailed network activities will include construction activities, submittal and approval of samples and shop drawings, procurement of critical materials and equipment and fabrication of special materials and equipment and their installation and testing.
- The contractor is required to participate in a review and evaluation of the proposed network diagrams and analysis by the contracting officer. Any revisions necessary as a result of this review must be resubmitted for approval by the contracting officer within __ days after the Preconstruction Conference.
- The approved schedule is used by the contractor for planning, organizing and directing the work, reporting progress, and requesting payment for work accomplished.
- The contractor is required to submit a monthly report of the actual construction progress by updating the mathematical analyses. The report must show the activities or portions of activities completed and their total value.

Exhibit 4-5

Inspection

Now that you have reviewed the specification and identified the clauses concerning quality control, you can determine whether

- the contract calls for **standard inspection**, or
- if the contract requires the contractor to assume the responsibilities for inspection, which is called Contractor Quality Control (CQC).

Past Performance

Has the contractor demonstrated a good "track record" in performing on time? If past performance indicates a tendency for late performance, are there any identifiable reasons or patterns to the deficiencies?

For example, a specific superintendent appears to be identified with the contractor's past deficiency in late completions, whereas another superintendent working for the same company may appear to have a good record.

Even though the contracting officer, prior to award, will have determined that the contractor is able to perform the contract, your review of the previous performance evaluation reports on the contractor may be of value during the contract administration planning stage.

FAR 36.201

Performance evaluation reports are made at the completion of contract work. These should be available locally in the contracts office. Some agencies have a data bank which computerizes and stores the information taken from the performance evaluations.

By reviewing them, details can be obtained concerning the contractor's strengths and weaknesses.

Examine Previous Records

Now, suppose you examine previous records and find that the contractor, who is ready to perform, is

- considered a marginal performer,
- has a poor record-but not so poor as to be nonresponsible, or
- perhaps a COC was issued by the SBA after the contracting officer had made a nonresponsibility determination.

In this situation, it is advisable to investigate further as to what actions you might take to preclude having problems:

-Were the low ratings due to poor quality, or to late performance?

-Who was the superintendent on the job?

Answering questions like these will help you develop a contractor performance profile and provide insights to the expected amount and type of surveillance required.

Contract File

Examine the preaward documents contained in the contract file for the following:

- clues concerning any contractors weakness (especially the contracting officer's determination of responsibility),
- project duration and complexity.

Further information may be obtained by contacting other or former contract administrators.

Bid Price

Another element to review is the bid price. You can compare the bid spread contained in the preaward contract file and quickly analyze if the bid was considerably below the ① Government estimate and/or ② other bids received.

Special precautions and procedures may be required in surveillance of a contractor who is operating at cost, or below cost.

Lacking profit, she will not be as motivated as the contractor who is rewarded for her efforts by receiving a monetary award (profit). You may have to devote more time to surveillance in order to preclude sloppy work and lagging performance.

Construction Surveillance Services

Contract services in which professional or nonprofessional personnel perform specified inspection and/or testing of a contractor's work.

A Construction Surveillance services contract is independent from the construction contract. It also differs from Construction Management services.

Services may be procured from either the

1. A/E firm that prepared the initial construction contract plans and specifications (using an option contained in the design contract),
2. An independent, qualified A/E firm procured through the open market, or
3. An indefinite quantity delivery order contract established for such services by your agency.

Even though the function may be contracted out, the Contracting Officer is still responsible to assure that:

- All work is accomplished in accordance with applicable drawings and specifications.
- Sufficient surveillance is provided by Government employees to assure control of contract delivery.
- Direction is not provided by one contractor (i.e. the A/E contractor) to another contractor.

- Efforts are not categorized as personal services. (A/E employees do not receive direct supervision from Government personnel.)

- Efforts accomplished by a contractor are not those functions that are reserved for the Government. These functions include decision making, ordering of work, approving payment, or signing of contractual documents.

- The contractor provides a tangible product such as daily inspection reports.

The manner in which the surveillance services are utilized will depend on ① the type of project, ② the location of the project, and ③ the particular capabilities of the individual firm. You must obtain a copy of the contract setting forth the surveillance services so that you will be knowledgeable as to the scope of the contract.

Exhibit 4-6 demonstrates the type of services that may be included in a construction surveillance contract.

CONSTRUCTION SURVEILLANCE TYPE SERVICES

Review and Comment on:

Submittals for conformance with drawings and specifications.
Constructibility functions.
Materials testing reports.
Construction contractor surveying reports.
Schedule of prices.
Contractor's network analysis.
Quality control, demolition and environmental protection plans.
Contractor's request for payments.
CQC reports and daily reports to inspector.
Adequacy of installation, operation and maintenance manuals.
Contractor's "as-built" drawings.

Other Duties:

Conduct routine labor standards interviews.
Prepare estimates for modifications.
Test systems installed, i.e., waste, gas, water, electric, HVAC, etc.
Assist in prefinal and final inspections.
Provide periodic photographs, videotapes showing work progress or deficiencies.
Attend Preconstruction Conference or other meetings as required.

Exhibit 4- 6

Field Consultation

Most A/E surveillance contracts call for

- weekly or monthly visits to the construction site, and
- on-call field consultation service for "trouble-shooting".

The weekly or monthly service is coordinated between you and the A/E.

The on-call service is designed to provide expert assistance to you in problem solving, or to identify potential problems at the job site early enough to possibly preclude a claim being filed at a later date.

However, before requesting the on-call service you must:

- Coordinate with the project or construction manager.
- Obtain funds. (The service is usually negotiated on a reimbursable per-day basis, with an estimated number of days based on the size and complexity of the project.)
- Be certain of the provisions for such service by reviewing the terms of the applicable A/E contract.
- Comply with agency procedures.

Construction Management

One of the most significant contract management techniques which has evolved is called construction management. The Government employs, by contract, the services of a manager who:

1. Acts as the Government's agent during the design of the project:
   - works in parallel with the A/E,
   - monitors the design to make sure that it will
     - make use of the best and most efficient construction techniques and
     - still remain within budget;

2. Acts for the Government during construction as the overall manager of the project:
   - coordinates the work of specified subcontractors,
   - jointly administers the contract with the A/E,
   - monitors costs,
   - maintains records, and
   - assists the A/E in inspection.

The use of construction management requires different staffing than the traditional construction method. The Government needs personnel to make day-to-day decisions about the alternatives which are presented by the construction manager and the A/E, rather than placing the emphasis on inspection.

The role of the construction manager has taken on many different forms, with the result that there is no single mode of operation that can be defined as the "construction management" method. Therefore, your agency may employ a different method than that described.

TIME OUT TO THINK

Greg has investigated the contractor's past performance by reviewing performance evaluation reports and talking to contract administrators and has decided that the contractor does quality work but is too slow. Now is the time for Greg to devise countermeasures to avoid or lessen the chance of late delivery.

YGreg has also learned what kind of surveillance services are available from an IQ contract. He now has a better idea on how to plan the work load and the number of people that it will require. It comes through "loud and clear", however, that it is still his responsibility. His hopes that he could forget about the project and leave it entirely up to the surveillance inspector or the CQC Manager have been dashed.

Who should be delegated to the contract administration team?

4.2 Contract Administration Team

Team effort, coordination, and cooperation play significant roles in any successful completion of a construction contract. Exhibit 4-7 identifies the "players," briefly describing their roles and responsibilities. Keep in mind that the specific functions performed by each team member depend upon the :

- complexity of the specification,
- geographical location of the project, and
- specific contract requirements.

FAR 42.203(a)

Contracting offices shall retain for contract administration any contract:

1. Not requiring the performance of contract administration functions at or near the contractor's facilities; or
2. For which retention by the contracting office is prescribed by agency acquisition regulations.

Most agencies involved in construction, however, perform their own contract administration because:

- The inspection requirements of a construction contract demand that an inspector be on site at all times; and

- The problems that arise in a construction contract require specially trained personnel and engineers to resolve the technical problems.

Contracting Officers may request contract administration support at any time, from survey activities, if needed. This may be arranged by contacting local field offices of the surveying activity.

"PLAYERS"
THEIR ROLES AND RESPONSIBILITIES

TEAM MEMBER	ROLES and RESPONSIBILITIES
Procuring Contracting Officer (PCO)	Enters into and administers contracts. Responsible for the contract instrument from "cradle to grave."
Contract Specialist	Performs contractual tasks under the direction of the Contracting Officer or the Administrative Contracting Officer (ACO).
Administrative Contracting Officer (ACO)	Receives delegated authority from the Procuring Contracting Officer. Usually required when the PCO is in a separate location from where the contract is being administered, or in an organization where the functions are divided.
CO(T)R	Appointed by the CO with specific technical responsibilities. No monetary authority. Normally located at the work site. Provides technical guidance to the Contracting Officer or the ACO and the contractor.
Technical Representative	Various individuals (engineers) provide the technical expertise, depend ing upon the activity organization (i.e., Construction/ Design). These skills relate to such matters as design, specifications, production, quality assurance, and inspection/acceptance.
A/E	Acts in an advisory capacity only. Designer is in the approval chain for submittals. The A/E contract may, or may not have consultation services available as a part of the contract, or available as an option. Provides for design error solutions to be resolved during the course of the construction.
Construction Manager	Inspection, monitoring, and all other contract administration tasks involved, as if the service is being performed by Government personnel, is accomplished under a separate contract between the Government and the contractor. No contractual authority is delegated. This method of obtaining contract administration services is agency specific. If used, the contractor's employees would be members of the team, with specific delegated functions.
Inspector	An engineer who performs inspection and surveillance for the Government. May be employed by the Government or may actually work for the A/E contractor, but also coordinates with the Contracting Officer. Does not have contractual authority. Usually provided in complex, high dollar projects with extensive inspection and testing requirements.
Auditor	Responsible for field pricing support of negotiated contract modifications, as required.
Project Manager	Manages the overall project, acting as coordinator between the customer, the comptroller and the Contracting Officer. Provides assistance to the Contracting Officer in obtaining funds.
Legal Counsel	Renders assistance and advice on all legal and related matters concerning the acquisition. Reviews bonds for legal sufficiency, disputes, claims, and all other documents that the Contracting Officer seeks to have reviewed.

Exhibit 4-7

Delegation of Authority to ACOs

If the procuring contracting office does not perform all the contract administration functions ("cradle-to-grave"), certain functions can be delegated, in writing, to another office which is usually referred to as the Contract Administration Office (CAO).

The usual construction contract administration functions which are delegated by the PCO to the CAO are illustrated in Exhibit 4-8:

DUTIES WHICH MAY BE DELEGATED TO THE CAO

- Negotiate/execute supplemental agreements incorporating contractor proposal results from change orders issued under the "Changes" clause.
- Negotiate/execute supplemental agreements changing contract performance schedules.
- Negotiate/execute supplemental agreements that deobligate unexpended dollar balances which are considered excess to known contract requirements.
- Issue amended instructions when necessary.
- Approve progress payments.

Note: The ACO shall perform only those functions delegated. All other authority is retained by the PCO.

Exhibit 4-8

4.3 Develop Tracking/ Monitoring Systems

The flow of correspondence through the CAO to other offices, as well as to the contractor is substantial. It is considered essential to answer all inquiries submitted by the contractor in a timely fashion. Failure to respond to a contractor's notice in a timely manner may result in a constructive change:

> **For example**, the contractor notifies you that the construction site contains a substantial amount of preconstruction debris which, under the contract, was to have been removed by the Government. If you fail to respond to the notification and the contractor proceeds to remove it in order to continue with the work, you have created a situation for a possible claim.

Your failure to act would probably have resulted in delaying the contractor. These situations can be flagged and addressed in a timely manner by having in place a tracking and monitoring system.

Correspondence isn't the only task that needs monitoring. Other matters are equally important to track, as listed in Exhibit 4-9.

EXAMPLES OF TASKS TO BE MONITORED

TASKS	ACTION ITEMS TO BE MONITORED
• Negotiations	Timely execution.
• Modifications	Signatures (approvals), definitization dates.
• Progress Payments	Daily progress, retention dollars.
• Funding	Control of dollars.
• Payrolls	Currency, withholding.
• Insurance	Track prime and subcontractor's insurance policies/renewals.
• Labor	Compliances.
• Performance	Events or activities (time).
• Inspection	Daily Records.
• Submittals	Status Log.
• Daily Reports	Monitoring.
• Claims	Required actions.
• Show Cause and Cure Notices	Tracking (time).
• Suspension of Work	Tracking (time).
• Material substitutions	Approvals, disapprovals.
• Schedule of Prices	Comparison.
• Value Engineering Proposals	Approvals, savings, dollars.
• As-built submissions	Currency.

Exhibit 4-9

4.4 Issue Planning Forms and Notices

The contract administrator, whether the PCO or ACO, is responsible for:

- all required forms,
- notices of names/roles, and
- limitations of authority on those persons involved in contract monitoring.

The required forms and notices are typically provided to the contractor at the preconstruction conference; but may be furnished sooner such as agency specific forms needed for

- safety program approvals,
- schedule of prices,
- progress schedules, etc.

Forms for administering a construction contract are prescribed by ① the FAR (See Exhibit 4-10) and ② your agency or local contract activity. They are designed for virtually every action to be taken during the life of the contract and provide

for standardized and complete documentation.

Therefore, it is an excellent time for you to take stock of all forms that may be needed so that an adequate supply is always readily available.

Planning is Finalized

1. Having determined the extent of administration needed:
   - problem of handling a contract that has been awarded to a marginal contractor, or
   - awarding to a new contractor performing on a first government contract, and

2. Having assembled a contract administration team:
   - identified those to receive delegations of authority,
   - established a tracking system, and
   - ensured supply of needed forms and notices,

3. You are now ready to formalize your contract administration planning by:
   - preparing written plan,
   - distributing it to each team member including the contractor,
   - issuing individual, written delegations of authority, and
   - updating the plan as necessary.

Your goal is to see to it that the contractor and all other persons involved, are aware of who is responsible for what, and the limits of authority pertaining to each individual. If changes are made in personnel during the life of the contract, be sure that these changes are communicated in writing as an update to your plan.

PRECONSTRUCTION CONFERENCE

Greg wondered if a Preconstruction Conference would be required for the CTC contract.

- *What do you think?*
- *What are the advantages/*

ADMINISTRATION OF CONSTRUCTION CONTRACTS AUTHORIZED FAR FORMS	
FORM NUMBER	**TITLE OF FORM**
Contract Forms:	
SF 30	Amendment of Solicitation/Modification of Contract.
SF 1442	Solicitation/Offer/and Award.
Bid Bond Forms:	
SF 24	Bid Bond.
SF 25	Performance Bond.
SF 25A	Payment Bond.
SF 25B	Continuation Sheet for SF 24, 25, & 25A.
SF 28	Affidavit of Individual Surety.
SF 273	Reinsurance Agreement for a Miller Act Performance Bond.
SF 274	Reinsurance Agreement for a Miller Act Payment Bond.
SF 1414	Consent of Surety.
Labor Laws:	
SF 1093	Schedule of Withholding under Davis Bacon Act & Contract Work Hours & Safety Standards Act.
SF 1445	Labor Standards Interview.
SF 1446	Labor Standards Investigation Summary Sheet.
SF 1444	Request for Authorization of Additional Classification and Rate.
WH-347	Payroll.
SF 308	Request for Determination and Response to Request.
Other:	
SF 1420	Performance Evaluation - Construction Contracts.

Exhibit 4-10

4.5 Prepare for Preconstruction Conference

The postaward orientation, generally known as a preconstruction conference for construction contractors, aids both the Government and the contractor to:

- Achieve a clear and mutual understanding of all contract requirements; and
- Identify and resolve potential problems.

FAR 36.305

As a minimum, a conference should be held

> "to inform the contractor concerning the labor standards clauses of the contract."

It is also helpful in assisting small businesses and small disadvantaged business concerns. However, it is up to the contracting officer to decide what form of preconstruction conference is necessary for the particular contract. Exhibit 4-11 lists considerations that may be useful in making the decision.

SELECTING CONTRACTS FOR THE PRECONSTRUCTION CONFERENCE

As a minimum, the Contracting Officer shall consider:

- The nature and extent of the preaward survey.
- Prior discussions held with the contractor.
- The type, value, and complexity of the project.
- Acquisition history of this type of project.
- Requirements for installed equipment.
- Urgency of the completion date(s).
- Phased completion dates.
- Length and number of construction activities.
- Extent of subcontracting.
- Contractor's performance history, construction experience, and expertise.
- Contractor's status as a small or small disadvantaged business concern.
- Performance history in the government's subcontracting programs.
- Safety precautions required for hazardous material or operations.
- Demolition requirements.
- Coordination required.

Exhibit 4-11

The conference is not to be used as ① a substitute for the contractor's full understanding of the work requirements at the time the offer was initially submitted, nor ② is the conference to be used to alter the final agreement arrived at in any "negotiations" leading to contract award.

When is Conference Held?

Maximum benefits will be realized if it is conducted promptly after award. However, when you are establishing the dates, keep in mind your own planning efforts as well as the extent of the contractor's effort in providing **information required or desired prior to holding the conference**, such as:

- Performance and Payment Bonds.
- Insurance Certificates.
- Initial Construction Progress Chart.
- Schedule of Prices.
- Listing of Subcontractors.
- Safety Program Plan.
- CQC Plan (if applicable).
- Environmental Protection Plan (if applicable).
- Accident Prevention Plan (if applicable).

You need to examine ① the contract clauses in order to identify contract requirements for initial approvals or submissions prior to the preconstruction conference. Also review ② the technical specifications in Division One for additional requirements which should be considered prior to the conference.

Agenda

Although the Contracting Officer is the individual responsible for the conference, you will probably be responsible for many of the preparations, including the selection of agenda topics. You should consider all of the information gathered thus far and analyze details, such as:

- Number of attendees,
- Information to discuss on each issue,
- Time needed for the meeting,
- Technical aspects to be covered.

A complete agenda should include, but not necessarily be limited to discussion topics outlined in Exhibit 4-12.

The agenda should be forwarded to the contractor prior to the conference along with information on the date, time, place, and any special instructions.

PRECONSTRUCTION CONFERENCE TOPICS FOR DISCUSSION

- Government and contractor assigned personnel, their roles and authorities.
- Insurance: Policies for the prime and subcontractors.
- Correspondence.
- Schedule of Prices.
- Liquidated Damages.
- Payments.
- Contractor Quality Control.
- Progress Schedules.
- Permits.
- Submittal Policies and Procedures.
- Material Expediting.
- Laboratory Testing Procedures and Approvals.
- Government Inspection. (Performance Evaluations)
- Handling Hazardous Waste (Environmental Issues).
- Government Furnished Property.
- Fire Protection Systems, Testing & Approval.
- Specialty Inspections.
- Safety.
- Labor Provisions.
- Contractor Overtime, or Work Outside of Normal Work Hours.
- Time Extensions.
- Material Storage.
- Availability of the Site.
- Shop Drawings.
- Utilities.
- Value Engineering Change Proposals (VECP).
- Holidays Identified (Union, Government).
- Modifications.
- Safety Plan.
- Accident Prevention.
- Payrolls.

Exhibit 4-12

In planning the agenda, allow ample time during the meeting for the contractor to make a presentation.

Because of the varying policies of contractors relative to the authority they give their own personnel, it is necessary for you to know exactly what authority is proposed to be given each of the contractor's key people.

The conference is an opportune time to ask the contractor questions like:

- Who is authorized to sign modifications?
- Is there a limit on dollar value of the modifications?
- Who can sign invoices?
- Who can certify payrolls?

Each conference should be tailored to the contract and take into consideration the contractor's knowledge of Government procedures. In order to keep the conference moving, it may prove valuable to

- cover some of the details by correspondence, or
- meet with the contractor later on an individual basis.

Exhibit 4-13 lists typical attendees at a preconstruction conference.

Government Strategy Meeting

For large complex contracts, you may need to hold a preliminary meeting of all Government attendees to go over the proposed agenda. Subjects at this preparation strategy meeting might include:

- A briefing on the scope of the work.
- Possible safety or fire hazards peculiar to the contract.
- The experience of the contractor.
- CQC requirements, if any.
- Potential traffic congestion problems.
- Anticipated length of the conference.
- Hazardous waste.
- Any special problems peculiar to the project.
- Review of early submissions by the contractor (i.e., Safety Plan, CQC, etc.)

Any subject matter that was not included in the initial agenda, but added as a result of the briefing may be incorporated prior to the actual conference. This will aid in assuring that the meeting runs smoothly.

During the strategy meeting with the Government attendees, it should be made clear to everyone that

1. The contracting officer is in control of the Preconstruction Conference at all times, and
2. All persons must conduct themselves in a highly professional manner, even if disagreements arise.

PRECONSTRUCTION CONFERENCE LIST OF ATTENDEES

For the Government:

- Contracting officer.
- Contract administrator/contract specialist.
- Contracting officer's (technical) representative.
- Technical representative.
- Project manager.
- Fire chief.
- Security representative.
- A/E.
- Safety representative.
- Small Business Administration (SBA) representative (If minority or disadvantaged contractor).

For the Contractor:

- Construction Manager (CM)
- Officer of the company with authority.
- Project superintendent.
- Individual responsible for paperwork.
- Safety representative.
- Major subcontractor representatives.*
- If CQC, quality control superintendent.

*NOTE: The construction contractor is responsible for holding any necessary preconstruction conferences with subcontractors. However, it is permissible to allow major subcontractors to attend if some of the major items to be discussed will involve them.

Exhibit 4-13

MUTUAL BENEFIT

Wouldn't you now agree that Greg should hold a preconstruction conference on a formal basis ? The decision is up to the contracting officer, but in any event a mini-meeting must be held to discuss the labor provisions. Besides, it benefits both parties.

4.6 Conduct the Preconstruction Conference

The Contracting Officer , who serves as the chairperson, must emphasize that it is **not the purpose of the meeting to change the contract**.

> The Contracting Officer may make commitments or give directions within the scope of the Contracting Officer's authority, but these must be put in writing and properly executed.
>
> Participants without authority to bind the Government are not permitted to take action that in any way alters the contract.

The chairperson must include in the conference report all information and guidance provided to the contractor.

All significant elements of administering the contract must be discussed in sufficient detail to permit all parties to fully understand what is expected of them. One of the benefits of having a Preconstruction Conference is the opportunity for both parties to establish a good working relationship by developing a mutual understanding of the contract requirements.

Under a competitive fixed-price contract, the Government is buying construction management along with the requirement for a quality product, and therefore a face to face meeting with all parties concerned is of primary importance.

Special Working Conditions

In many instances, the actual performance of the work at the project site is subject to special conditions that must be identified and discussed during the Preconstruction Conference. **Examples** of some special working conditions are provided in Exhibit 4-14.

Construction sites will always differ, and so will the conditions or environment in which the work is to be performed. All site specific requirements, therefore, must be explained to the contractor.

If these conditions should alter terms of the contract, a change will be required. As much as possible, the changes that are known before the conference should be addressed with the contractor at the earliest possible time, along with the government's position on such matters.

EXAMPLES OF SPECIAL WORKING CONDITIONS TO BE DISCUSSED

SPECIAL WORKING CONDITIONS	EXAMPLE
The need for the contractor to complete certain phases of the work on a special schedule when parallel work efforts by two or more contractors are required.	Utilities on one construction contract must be completed and on line so that other contractors can tie into it in order to complete other projects in the vicinity under separate contracts.
Identification of work efforts that are necessary but may not be readily identified in the plans and specifications.	Construction of temporary access roads, site preparation, tree removal/ preservation, work trailer locations, etc.
Pollution/environmental control during construction.	Dust suppression, asbestos, erosion, water run-off, etc.
Hazardous condition control measures to protect adjacent property.	Excavations, sparks, noise, etc.
Availability of Utilities.	Water, anticipated power outages.
Disposal of construction excess material or debris.	Site locations.
Availability of Government services (if any).	Security, fire, emergency medical. If none available by the Government, give the nearest location and phone numbers where the services are available.
Limitations on movement of contractor personnel and equipment.	Access roads, traffic, etc. Identify any particular hours of traffic congestion that might cause a problem in movement of heavy equipment.
Parking area locations for personnel if private vehicles are allowed at the site.	Provide maps.

Exhibit 4-14

An agreement may not be reached on all matters which are discussed during the conference. Therefore, set a date when

1. Further discussions will be held.
2. Questions will be answered that have been addressed by the contractor for which you need further review before responding.

Be specific and be responsive.

Contractors who have past performance ratings indicating marginal quality workmanship, are also usually

- late in completing projects,
- late in submissions, and
- in general, show lack of business management skills.

Consideration should be given to holding a private discussion with this type contractor at a later date, (prior to commencing work) to discuss your concerns about performance and any other potential problems. Use the opportunity to motivate the contractor if possible. The Preconstruction Conference is a good time to establish the date for any such future discussions.

Report

The Contracting Officer is responsible for preparing and signing a report of the Preconstruction Conference. This report should cover all matters discussed, as well as names of participants. A copy must be furnished to all participants. Exhibit 4-15 provides an example of a typical report.

EXAMPLE - PRECONSTRUCTION CONFERENCE REPORT

LOCATION: _____

FOR: _____

CONTRACT NO. _____

ADDRESS: _____ ZIP CODE: _____

AUTHORIZED REPRESENTATIVE OF THE
CONTRACTING OFFICER

1. The conference convened at _____ hours on _____

2. Introduction. Each of the persons attending the meeting was introduced. The Contracting Officer explained the purpose of the meeting, which was to orient the contractor with respect to safety requirements, have the contractor and using agency personnel meet each other, and have a general discussion of items of major importance with respect to the contract. A list of personnel attending the meeting is attached.

3. Notice of Award was issued _____. The contract amount is _____. Completion time is _____calendar days after receipt of Notice of Award (or Notice to Proceed) thereby establishing a contract completion date of _____. Interim completion dates are as follows:
(If applicable)_____.

- Responsibilities and Authorities.

a. The Administrative Contracting Officer (ACO) has authority to administer the contract and issue certain modifications to the contract up to the amount stated by the Contracting Officer's Letter of Authorization. Only the Contracting Officer and the ACO have authority to make changes to the contract. The ACO does not have authority to waive any contract requirements.

b. The Contracting Office organization consists of the following personnel with the following responsibilities:
_____

_____

Exhibit 4-15

c. Contractor's Organization: _(name)_____ is the Project Superintendent who has the responsibility for constructing the entire project safely and in a timely fashion as well as negotiating and signing modifications to the contract. _____ is the Quality Control Inspector, who is responsible for quality assurance and job safety in accordance with the contract. Subcontractors with a brief description of work to be performed are as follows:

(1) _____

(2) _____

(3) _____

The normal work shift at the job site will be from _____a.m. until _____ p.m. _____days a week.

• Progress Reporting. (Include only the appropriate one.)

a. Progress Schedule Bar Chart. The contract requires that the contractor submit a schedule showing how the work will be performed and the sequencing of work. This schedule shall present a feasible and practicable plan to accomplish all of the work in accordance with the contract requirements. The schedule shall show a breakdown of the principal features of the work by bar graphs, with contract cost and curves plotted so that the percentage of work scheduled for completion at any given date may be determined. Partial payment estimates cannot be processed until the schedule is submitted, reviewed, and approved. Cut-off date will be the _____ of each month for payment estimates.

b. Critical Path Method. The contract requires the use of a network analysis system for the surveillance of the work required under the contract. The specific requirements discussed were as follows:

(Requirements listed here)

• Correspondence. All correspondence pertaining to this contract should be addressed to:

_____

_____

_____

Exhibit 4-15 (Continued)

• Record Drawings. It is the responsibility of the contractor quality control organization to maintain record drawings. Three sets of marked-up drawings are required, and one up-to-date, marked-up set should be on the job site at all times. The record marked prints shall be accurate in description of changed work and must be jointly inspected monthly for accuracy and completeness by the contractor's personnel and the Contracting Officer's Representative. Two copies of the preliminary record marked prints shall be furnished to the Contracting Officer at the time of final inspection for review and approval.

At the time of approval of preliminary drawings, the Contracting Officer will furnish the contractor the tracings of the original set of contract drawings. Thirty days after receipt of the approved record preliminary drawings and the tracings, the contractor shall submit to the Contracting Officer the final record drawings as well as the approved preliminary record marked prints. The specific requirements for preparation of these are listed in the contract specifications.

• Modifications. Upon receipt of a SF 30, which constitutes a change to the contract, the contractor should review the changed work, secure costs as necessary, and furnish a proposal to the Administrative Contracting Officer within _(days)___, if possible. This proposal should include a complete cost breakdown indicating labor, materials, and other data for evaluation. It will be reviewed by the Contracting Officer's Authorized Representative, and a meeting will be held for any negotiations which are necessary in order to arrive at a fair and equitable adjustment in cost and time for the changed or additional work. Never proceed with any modification without written authority or direct instructions from the Contracting Officer or the ACO; otherwise, the contractor is assuming the risk of not being reimbursed for additional expenses. Should local personnel desire something different from that required by the contract, attention was called to the fact that all changes must be issued by the Contracting Officer.

• Quality Control Management. (Tailored in accordance with agency procedure.) There is a contract requirement for the contractor to maintain an adequate inspection system and perform such inspections to assure that the work conforms to the contract requirements, and maintain and make available to the Government adequate records of such inspections. The contract under the specification indicates the number and types of personnel required for the quality control organization created by the contractor to perform these inspections. The contract also includes the types and description of inspections necessary to be held for each definable item or segment of work for adequate inspection. The contractor is required to give careful consideration and furnish an inspection plan for the accomplishment of this responsibility. The items which must be covered by the contractor's inspection plan are listed in the contract. For the other items of work which must be accomplished by the inspection system, there are specific instructions included in the contract.

Exhibit 4-15 (Continued)

- Liquidated Damages for failure to complete the work on schedule are:
  _____
  _____
  _____

- Value Engineering. Value engineering is an organized effort directed at analyzing the function of construction, systems, equipment, and supplies for the purpose of achieving the required function at the lowest overall cost consistent with the requirements for performance reliability and maintainability. Value engineering may be simply defined as the use of every available means to attain only the required functions at a minimum of cost. Clause No. _____ of the contract indicates the method for submittal of a value engineering submittal as well as the method of computing equitable adjustments in the contract price.

- Shop Drawings. The contractor shall submit to the Contracting Officer for approval the specified copies of all shop drawings as called for under the various headings of these specifications and specifically designated for review and approval as outlined in the Technical Provisions of the contract under the "Contractor Quality Control System." If approved by the Contracting Officer, each copy of the drawing will be identified as having received such approval by being so stamped and dated. The contractor shall make any corrections required by the Contracting Officer. If the contractor considers any corrections indicated on the drawings to constitute a change to the contract drawings or specifications, notice as required under the clause entitled "Changes" will be given to the Contracting Officer. ___(number)_____ sets of these shop drawings will be retained by the Contracting Officer. Review by the Contracting Officer shall not be construed as a complete check, but will indicate only that the general method of construction and detailing is satisfactory. Approval of these drawings will not relieve the contractor of the responsibility for the dimensions and design of adequate connections, details, and satisfactory construction of all work. An average of not less than _____ days should be allowed for review by the Contracting Officer. All other shop drawings as called for under the various headings of these specifications shall, after being certified by the contractor to fully comply with the contract plans and specifications, be submitted in triplicate to the Contracting Officer for record purposes only. Certification of shop drawings, materials, fixtures, and equipment by the contractor will not relieve the contractor of the responsibility for any errors which may exist; and the contractor shall be responsible for the satisfactory construction of all work. The contractor shall certify, with each submittal of shop drawings, that the shop drawings have been reviewed in detail and that they are correct and in strict conformance with the contract drawings and specifications, except as may be otherwise explicitly stated. Shop drawings will be submitted prior to delivery of the affected material and/or equipment to the job site.

Exhibit 4-15 (Continued)

- Local Regulations. The following items were discussed.

  a. Identification of workers and vehicles (names).

  b. Requests for outages and street closing. (If applicable)

  c. Regulations concerning welding and cutting. (Describe)

  d. Fire regulations. (Record discussions)

  e. Strike.

  f. Haul road. (Describe)

  g. Traffic control.

  h. Storage of materials. (Where? How? Describe)

  i. Utilities furnished.

  j. Salvage property.

  k. Government-furnished property. (GFP)

Exhibit 4-15 (Continued)

l. Security requirements.

_____

_____

m. Waste and borrow areas.

_____

_____

n. Permits.

_____

_____

• Payrolls. Timely submittal of certified copies of all payrolls by the contractor or subcontractors is required. Attention was called to the fact that the employee must be paid proper wages for the type of work done, and this may include more than one type of work for a single worker. The project bulletin board with wage rates and equal opportunity poster should be installed per contract requirements. Employees will be interviewed periodically by a Government representative to insure compliance with applicable wage rates. The contract includes specific instructions concerning fringe benefits and overtime provisions, and these were discussed fully including $10.00 per day penalty per person for each overtime violation and withholding of a sufficient amount to cover violations of the Davis-Bacon Act. The remaining information as contained in "Instructions to Contractors on Contract Labor Requirements," which was previously furnished, was reviewed, including: apprentices, information required on payrolls, correction of payrolls, subcontractor's requirements, labor disputes, and Equal Opportunity requirements.

• Payroll Estimates. Allowance will be given for properly stored materials which is included in invoices submitted by the contractor. Payment for completed items of work will be based upon amounts agreed to mutually by the contractor and a representative of the Government prior to pay estimate ending date.

• Insurance. Evidence shall be furnished indicating compliance with workmen's compensation, comprehensive general liability, and automobile liability as required by the special provisions of the contract. Also, the requirement for notice to the Contracting Officer prior to cancellation was discussed. Insurance requirements apply to subcontractors.

• Special Technical Aspects. A discussion was held concerning: (Describe)

a. Status of concrete mix design.
b. Special protection or processing of aggregate.
c. Testing of cement, admixtures, and curing compound.

Exhibit 4-15 (Continued)

d. Concrete protection and curing.
e. Phasing of work.
f. Questions by contractor.

• Repetitive Deficiencies. A discussion was held concerning repetitive construction deficiencies peculiar to this type of construction.

• Environmental Protection. The Government Engineer advised the contractor that environmental protection is a requirement of the contract specifications and that it would be necessary for him to comply with all environmental pollution control programs established by the City and State. The following items were also discussed in detail:

a. Protection of existing trees, shrubs, and grass.

b. Dust control on haul roads, excavation work, and borrow areas.

c. Toilet facilities must be kept clean and services performed during working hours.

d. Burning of Materials. The contractor must furnish a proposal for implementing the environmental pollution control program within ten (10) days.

• Safety. The Contracting Officer previously advised by letter that all work performed under this contract will be done in accordance with pertinent provisions of the contract. The basis for this action is contained in contract clause FAR 52.236-13, Accident Prevention—ALT I of this contract. It was noted that the clause further provides that the contractor will take such additional measures as the Contracting Officer may determine to be reasonably necessary for the purpose. Also noted was the requirement to comply with the Safety and Health Regulations for Construction (CFR, Title 29, Part 1926). The prime concern under this contract will be compliance with FAR clause 52.236-13 of the contract. The Authorized Representative of the Contracting Officer has the responsibility to review the written Safety Program which must be submitted before work can commence.

The Accident Prevention clause provides that the general contractor is responsible for subcontractor compliance with the General Safety Requirements. This responsibility is further extended to subcontractor compliance with the safety program which has been developed for this project. Subparagraph __ under Special Provision __ "Contractor Quality Control System" of the contract specifies that each quality control inspector will be responsible for inspecting the work under surveillance for compliance. The quality control inspector's safety activities will be documented as required. All construction equipment must be inspected before it may be used on the job. These inspections will be documented. All work on electrical lines or equipment will be done de-energized, unless authorized. You are also responsible for accident prevention preplanning. The purpose of this preplanning is to provide the opportunity to analyze the major phases of the construction for hazards peculiar to the particular operation. Major safety hazards the ACO anticipates during construction are:

Exhibit 4-15 (Continued)

a.

b.

c.

Accident prevention preplanning will cover the above items on how it is proposed to eliminate or guard these hazards. Finally, an on-site representative will be monitoring safety activities. Failure to comply with the safety requirements of the contract will require the Contracting Officer to exercise the remedies outlined in FAR clause 52.236-13. The minutes of this meeting, being agreed to and signed, will become a part of the safety program for this project. A copy of these minutes will be on file at the job site from start to finish.

• Occupational Safety and Health Act. The contractor will be expected to comply with the Occupational Safety and Health Act (OSHA), as well as the Corps of Engineers' General Safety Requirements Manual (agency specific). OSHA standards are subject to change, and it is the responsibility of the contractor to be acquainted with all changes to OSHA standards and the effective date of such changes.

• Warranty of Construction. The Warranty of Construction clause requires the contractor, subcontractors, manufacturers, and suppliers to warrant that all work under the contract conforms to the contract specifications and contains no defect of workmanship, material, or design for a period of one year after final acceptance. Although the initial period of the warranty is one year, this clause requires that any item of work requiring corrective work is further warranted for an additional year from the completion of the remedial work. Also the contractor is responsible for not only the work but also for damage to other property caused by failure of the work.

4. The following forms and guidelines were furnished:

a. Instructions to contractor on contract labor requirements.

b. Equal Opportunity posters.

c. Contractor's Weekly Payroll Statement.

d. Construction Progress Chart.

e. Contractor's Statement and Acknowledgment or Certification.

f. Quality Control Guide for Testing of Materials and Equipment.

g. Other local forms.

_____ _____

Contractor Contracting Officer

Exhibit 4-15 (Continued)

CHAPTER 5

CONTRACT ADMINISTRATION CLAUSES

BRUSHING UP ON CLAUSES

"It's a great relief to have the preconstruction conference behind us," Bill Gibson said. "Now we can really go to work."

"One of the things I must insist on is that everyone working on this project must be familiar with the clauses in the contract. Without a complete understanding of the contract and the fine print, you cannot be proficient in the job. If you have any questions about any of them, please come see me." With that he dismissed the meeting, and the staff filed out of the room.

"I guess I had better do some brushing up on the clauses," remarked Greg to Sondra, as he bent over the drinking fountain. "Me too," Sondra replied, as she rounded the corner heading for her office.

Why is Bill Gibson insisting that <u>everyone</u> on the project be knowledgeable about the clauses contained in the contract?

Just how well do <u>you</u> know and understand the required construction clauses?

COURSE LEARNING OBJECTIVES

Overall: Identify all clauses in the contract relating to contract administration.

Individual:

5.1 Review and approve the Schedule of Prices which provides for:

- A balanced distribution of costs (no front loading).
- Mobilization costs (if approved).
- Premiums for bonding that are considered reasonable.
- Non-measurable items such as overhead & profit are distributed overall.

5.2 Identify the type of progress schedule required by the contract.

- Describe procedures for schedule review and approval.
- Identify other types of progress schedules and their characteristics.

5.3 Identify all contractor submittal and certification requirements.

- Review and approve/disapprove all submittals and certifications.

5.4 Identify the speciality contract clauses and provisions that are unique to construction contracts.

- Discuss requirements for approval, monitoring, inspecting, tracking, and administering construction unique specialty clauses.

5.5 Identify the property which the Government must furnish, and the dollar value attached to the property.

- Summarize the role and responsibility of the property administrator.

5.6 Monitor the contractor's performance against the Subcontracting Plan and identify any breach of contract.

- Upon discovery of any potential breach, notify the contractor and obtain resolution.
- Invoke remedies in case of non-compliance.

5.7 Monitor the Buy American Act - Construction Materials clause.

- Discuss procedures for investigating, reporting, and resolving violations.

INTRODUCTION TO CONTRACT ADMINISTRATION CLAUSES

Preliminaries

There are numerous preliminary preparations and requirements that must be dispensed with before work can actually begin:

- People tasked with the actual contract administration responsibilities are gearing up;
- Clauses are identified, the special ones are noted;
- Plans and specs are being studied;
- If it is a large, complex project involving CQC, the responsibilities and emphasis may result in a shift of personnel;
- While the Government is gearing up, the contractor is doing the same thing, in addition to mobilizing forces.

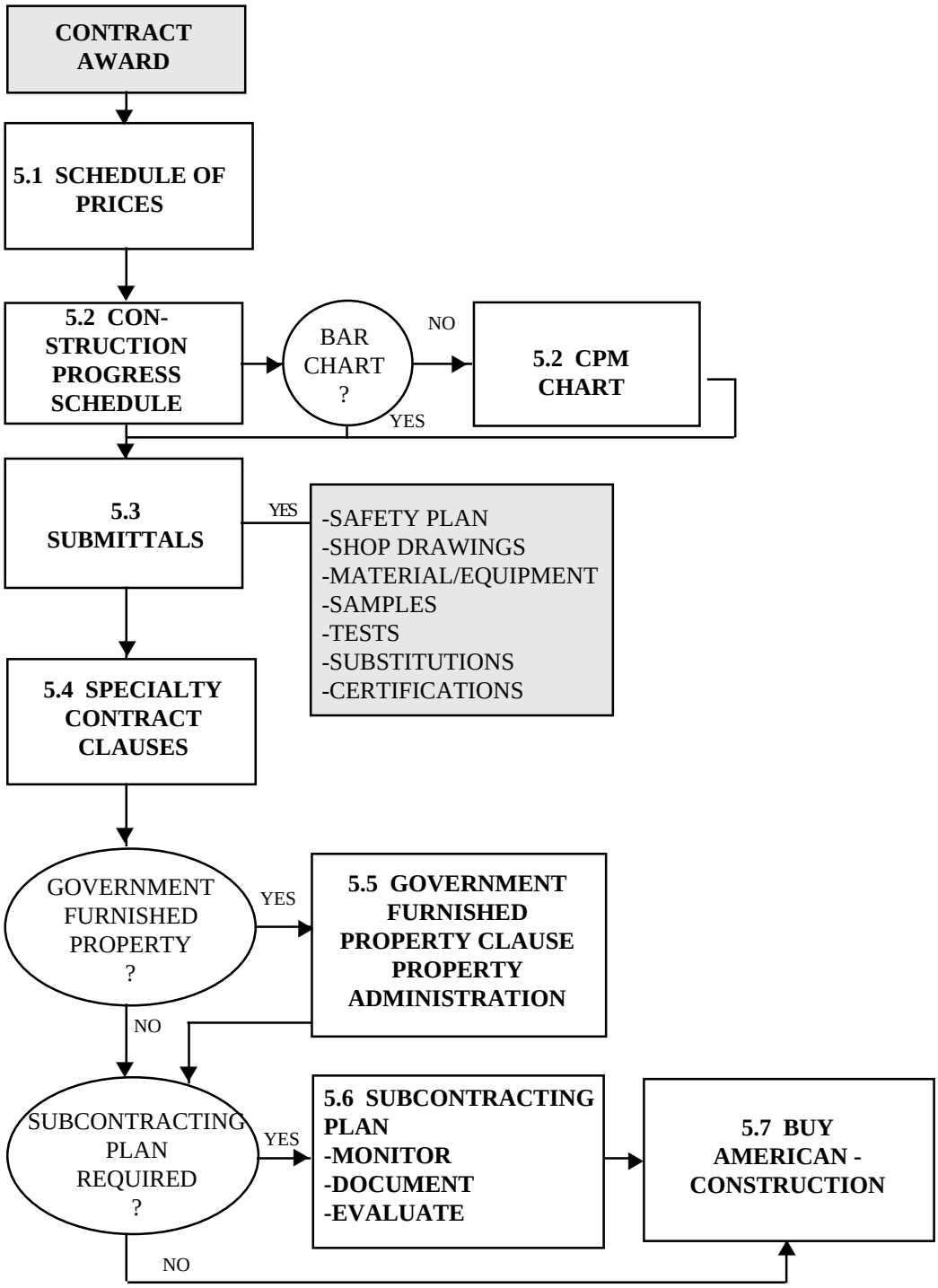
Day-to-day business entails the administration of the clauses in a construction contract. After all, they provide the vehicle and the authority for the contractual actions which become necessary during the administration phase.

Steps in Performance

The steps in identifying contract administration clauses are charted on the next page. Following the flowchart, each step is discussed in turn.

NOTE: The texts of many of the clauses discussed in this chapter are included in Chapter 2.6, Construction Contract Clauses, of the Classroom Exercises that you receive when taking the Construction Contracting course.

CONTRACT ADMINISTRATION CLAUSES



STEPS IN IDENTIFYING CONTRACT ADMINISTRATION CLAUSES

5.1 Schedule of Prices

FAR 52.232-5

One of the first duties you may encounter in the administration of a construction contract is to review and approve a Schedule of Prices which the contractor is required to submit in accordance with the PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS clause. The clause states that:

> "The contractor shall furnish a breakdown of the total contract price showing the amount included therein for each principal category of work."

The overall intent, of course, is to approve a Schedule of Prices which will permit the initiation of accurate progress payments with the ability to ① easily measure field progress for each item listed and ② quantify the payment amounts.

Your agency may prescribe specific forms or formats for the submission of the Schedule of Prices. An example of a typical one is provided in Exhibit 5-1. The Contracting Officer requests and approves the level of detail to be contained in the Schedule of Prices.

If you are tasked to review a schedule, you must insure that the following areas are analyzed.

Categories of Work

The breakdown of the total contract price must reflect:

- categories of work and materials that are involved;
- work in place; and
- appropriate values assigned to each category.

Deficiencies can be identified by comparing the categories of work

1. with those that the contractor lists on the progress schedule (See Section 5.2) and
2. against corresponding sections contained in the specification.
3. Other deficiencies may surface as you compare against a checklist such as the example in Exhibit 5-2.

Front-end Loading

The schedule must be practical, capable of performance, and must not be “front end loaded”. “Front end loaded” is a term used to describe a situation whereby the contractor attempts to place an

> excessive weight or value to the work that is to be accomplished early in the contract performance period in order to create an initial additional cash flow.

SCHEDULE OF PRICES (CONSTRUCTION CONTRACTS)

PART I/(To be completed by contractor)

ACTIVITY AND LOCATION
Agency Contracts Office, Room 260, Seaside, CA

TITLE OF CONTRACT AND SITE LOCATION
Various Repairs and Alterations to Building 560

NAME AND ADDRESS OF CONTRACTOR
Ace Construction Company, Santa Monica, CA

SIGNATURE AND TITLE OF CONTRACTOR'S AGENT
J.M. Davis, President

PART II (To be completed by Government)

1. CONTRACT NO.	2. DATE OF CONTRACT	3. CONTRACT PRICE	4.	5.	6.
47408- 91-C-487	Jan 6, 1990	$194,190.00			

7. ALLOTMENT OR ALLOCATION NO.	8. APPROPRIATION TITLE

9. TIME FOR COMPLETION (Hours)	10. REVIEWED & FORWARDED (Date)	11. SIGNATURE OF CONTRACTING OFFICER
255 DAYS		Bill Gibson

12. a. ITEM NO.	B. DESCRIPTION OF ITEM	c. QUANTITIES NO. OF UNITS	UNIT	d. MATERIAL COST UNIT COST	COST	e. LABOR COST UNIT COST	COST	f. TOTAL COST
1.	Bonds	1	ea.		2140.00			2,140.00
2.	Demo Work & Relocate existing (3) Trailers	3	ea.	833.00	2499.00	9007.00	27,021.00	29,520.00
3.	Install New Roofing System	3900	sf	3.50	13650.00	3.85	15,015.00	28,665.00
4.	Interior Wall Furring and Shelving	3600	sf	2.00	7200.00	1.98	7,128.00	14,328.00
5.	Insulate, Acoustical & Built-up Roofing	3900	sf	1.74	6786.00	2.61	10,179.00	16,965.00
6.	Sheet Metal Work	100	lf	4.00	4000.00	4.00	4,000.00	8,000.00
7.	Piping & Supports	800	lf	7.81	6248.00	18.75	15,000.00	21,248.00
8.	Air Conditioning Unit & Controls	1	ea		10018.00		6,270.00	16,288.00
9.	Store Front	152	sf	36.18	5500.00	6.58	1,000.00	6,500.00
10.	Doors & Hardware	3	ea	800.00	2400.00	150.00	450.00	2,850.00
11.	Gypsum Wallboard	3700	sf	1.00	3700.00	1.75	6,475.00	10,175.00
12.	Painting	3700	sf	.27	999.00	1.00	3,700.00	4,699.00
13.	Resilient Flooring	3800	sf	.65	2470.00	.96	3,648.00	6,118.00
14.	Electrical Switch Gear	1 lot	ls		1500.00		1,000.00	2,500.00
15.	Electrical Conduit and Wire	2000	lf	2.00	4000.00	3.11	6,220.00	10,220.00
16.	Electrical Fixtures	76	ea	50.00	3800.00	30.00	2,280.00	6,080.00
17.	Cabinet & Counters	70	sf	70.00	4900.00	14.20	994.00	5,894.00
18.	Clean-up Site	1	ea				2,000.00	2,000.00
	Totals	1	ea				Total Cost	194,190.00

Exhibit 5-1

SCHEDULE OF PRICES CHECKLIST

Check
✔

1. ____ Items for prime contractor accomplishment must total at least 12% of the contract value. (See FAR 52.236-1: VA - 15%; NAVY - 20%)

2. ____ Arithmetic is correct.

   ____ a. Horizontal multiplication and addition.

   ____ b. Vertical addition.

   ____ c. Total vs. contract price.

3. ____ Quantities are consistent with government estimate.

4. ____ Related items are consistent in quantity (i.e., numbers of doors/hardware sets, dry wall/painting).

5. ____ Units of measure are appropriate (i.e., sf of painting vs. gallons; CY of concrete, etc.).

6. ____ Lump sum amounts not listed, except for minor items. (It is difficult to measure progress.)

7. ____ The balance between labor and material is proper.

8. ____ Unit price for labor is reasonable.

9. ____ Unit price for material is reasonable.

10. ____ Any omissions?

11. ____ Any duplications?

12. ____ Is there any “front loading” of costs?

13. ____ Are costs for items unbalanced?

14. ____ Premiums for performance and payment bonds are verified.

15. ____ Overhead and profit is spread over all measurable work activities.

Exhibit 5-2

This could result in overpayment during the early stages of work, which in turn would leave insufficient funds for contract completion in the event of the contractor's default at a later date.

Mobilization Costs

The Contracting Officer may approve the contractor's mobilization or start-up costs if they are considered significant. If approved, demobilization costs must also be allowed.

Bond Premiums

In reviewing bond premiums listed on the contractor's Schedule of Prices, you should require them to be listed as a separate item. Compare the rate listed on the bond premium with the rate listed on the Performance Bond Form. The price should be the same and expressed as a percentage of the premium.

If the guarantee is in the form of a bond issued by a bonding company approved by the U.S. Treasury Department, a reasonable rate should be somewhere between one-half to one percent.

If the bond is in the form of an individual surety, the rate is usually higher, and would fall into an approximate range between one and three percent. It is important that the rate established is correct for purposes of approving payment. The established rate will also be used in negotiation of future change orders. (Your agency may require higher level okay to use.)

Bonding companies, for purposes of computing bond premiums, allocate the contractor's work categories into four classifications:

A-1 A B Miscellaneous

Classifications are based on the type of construction called for. Exhibit 5-3 lists some examples.

Other criteria considered by bonding companies in determining the construction bond rate for a given contract are:

- contractor's performance record;
- longer than the standard warranty period of one year required by the solicitation;
- bonds totaling 20% or less of the contract price;
- certain classes of work; and
- type of contract contemplated.

BOND RATE CLASSIFICATIONS FOR CONSTRUCTION

The listings below are samples for each category. Complete listings can be obtained from bonding companies.

A-1	A	B	Misc.
Complex Equipment	Airfield grading	Air Conduit	Bridges
Pipelines	Parking Areas	Buildings	Pre-Fab
Tank	Towers	Canals	Culverts
Fire Alarm Systems	Storage Tanks	Docks	Demo
	Wind Tunnels	Pipelines	Dredging

Note: If the construction project involves more than one classification, a higher rate prevails.

Exhibit 5-3

5.2 Progress Schedules

FAR 52.236-15

The contracting officer may use the SCHEDULES FOR CONSTRUCTION CONTRACTS clause in contracts exceeding the small purchase limitation in order to provide a tool for measuring the progress of the contractor. Its uses are valuable in:

- Determining progress when processing payments.
- Minimizing delays.
- Preventing conflict between work elements.
- Coordinating subcontractor work.
- Scheduling resources and deliveries.
- Providing a method for comparison with the Schedule of Prices. (A checks and balance.)

The clause provides that:

- Schedule must be submitted within five days after the work commences, or later if the contracting officer allows.
- Three copies are to be submitted.
- Failure to adhere to the schedule submitted and approved may require the contracting officer to:
  - iIncrease the number of shifts;
  - require the contractor to work overtime;
  - increase number of workdays;
  - submit a schedule to show how the contractor plans to “catch up”.
  - initiate default proceedings.

Schedule Types

Construction progress schedule types vary with the complexity of the contract:

- Large dollar, multi-discipline contracts may require an elaborate network analysis system in order to completely demonstrate the contractor's approach. The most commonly used system in construction is the **Critical Path Method (CPM)**.
- In less complex contracts, the most commonly used method of illustrating progress is the **Bar Chart**.

The advantages and disadvantages of each are illustrated in Exhibit 5-4. (See also Appendix A.)

ADVANTAGES	DISADVANTAGES
Bar Charts: • Simple to use. • Inexpensive. • Easy to understand.	• Able to show only a limited degree of dependency.
Critical Paths: • Accepted by the courts in claims and settlements. • Shows a high degree of interdependency. • Shows causes & effects. • Shows impacts/delays. • Useful in negotiations. • Able to separate float time and critical paths.	• Calculations are tedious and time consuming if done manually. • Network is only as good as the information put into the computer.

Exhibit 5-4

You must exercise a great deal of care in reviewing the progress schedule, as approval indicates concurrence on the part of the Government that the contractor's approach to achieving satisfactory progress is reasonable. Also remember that the schedule is used to justify other actions, such as:

- measuring progress for payments,
- justifying time extensions, and
- settling claims.

The contracting officer may also require the contractor to annotate the schedule as to the various classes of work broken down into:

- Time projected for submittals, approval and procurement.
- Times for installation and erection.
- Times for testing and inspection.

Exhibit 5-5 provides a checklist for reviewing any progress schedule.

PROGRESS SCHEDULE CHECKLIST

Check
✔

_____ Does the schedule show reasonable logic?

_____ Is the duration for each construction task equal to the volume and complexity of work to be completed?

_____ Are specific milestones shown?

_____ Is there time for submittal review and material delivery?

_____ Is the correct contract completion date shown?

_____ If the contractor schedules the project for completion earlier than the required contract date, are the task duration, submittal review times, material deliveries, utility outage requests, etc. included and reasonable?

_____ Is there adequate detail to follow the project and make predictions of the progress?

_____ Is there enough detail to document what the contractor intended to do in the event of a failure or dispute? Can the schedule be made to say anything the contractor wants it to say?

_____ Is the contract value correct?

_____ Is the schedule unbalanced to allow for heavy early payments?

_____ If mobilization is included, is there an equivalent amount of time and money scheduled for cleanup and demobilization?

_____ Are the mathematical calculations correct, or have there been accidental or obvious mistakes?

_____ Has the schedule been signed and dated by a principal of the firm?

Exhibit 5-5

Since the CPM progress schedule is a more complicated procedure than e.g. the Bar Chart method, it deserves more review attention before being approved. Exhibit 5-6 describes the features of the CPM.

1. Depending on the complexity of the project, you may need additional technical assistance from within your organization who specializes in schedule analysis.

2. If the contract calls for professional services or A/E assistance, the contracting officer should obtain comments from the individual(s) assigned these functions.

PROGRESS SCHEDULE FEATURES OF A CPM

- Work items and values should agree with the Schedule of Prices.
- Must be practicable.
- Should be expressed in whole dollars.
- Must show the sequence of work.
- An activity must be prepared for each work item showing:
  - Description. (VA also defines by trade and crew size.*)
  - Estimated duration expressed in calendar days.
  - Earliest start date.
  - Earliest finish date.
  - Latest start date.
  - Latest finish date.
  - Slack or float.
  - Monetary value of each activity.
  - Actual start date.
  - Actual finish date.
- Must indicate the percentage of work complete on any date during the performance period.
- Should indicate dates for acquiring major items of equipment and materials.

*Crew size helps decide if contractor has properly manned job to meet schedule.

Exhibit 5-6

Early Schedule

Sometimes the contractor submits a schedule showing earlier completion dates than required by the contract. It is usually the result of:

- contractor's desire for early completion due to other commitments;
- optimism regarding the requirements;
- anxiousness to please by offering an improved schedule; or
- lack of understanding of the scope.

Regardless of the reason, a careful analysis must be performed prior to approving the schedule. The contractor must clearly demonstrate how earlier completion dates will be met. Although you may consider the completion date proposed to be reasonable, you must caution the contractor that the schedule will be used to compute progress payments, time extensions, etc. Your review should pay particular attention to:

- Relation of overall completion date to intermediate ones;
- Time constraints built into the specification, such as coordination with other contracts and/or other contractors;
- Seasonal weather;
- Availability of construction material;
- Lead time in manufacturing equipment to be installed; and
- Availability of labor.

Once you have approved the progress schedule, it must be periodically updated by the contractor. For example, the monthly request for payment must contain:

- justifications for any delays that have been encountered,
- any work added or deleted by modification to the contract,
- an updated schedule.

Actual progress is measured by comparison to the Government estimate and the intended progress by the contractor. Failure to maintain satisfactory progress will be discussed further in Chapter 8, Remedies.

Unacceptable Schedule

If the contractor submits a progress schedule which the contracting officer determines is unacceptable, it must be returned promptly, along with an explanation as to why it was found to be unacceptable. The contracting officer may withhold approval of any progress payments until an acceptable progress schedule is submitted.

DON'T DELAY

Based on information provided thus far in the text of material, you now understand the importance of contractual clauses such as the Schedule of Prices and the Progress Schedule. Both must be submitted within a short time after award, and both must be approved in order to proceed with the work and make progress payments to the contractor.

The courts have long held that when the contract stipulates that the contractor must obtain Government approvals before proceeding with the work, a compensable suspension of work will occur if such approvals are not given within a reasonable time.

5.3 Submittal Process

Although the requirement for contractors to make submittals to the Government is generic among the agencies, procedures may differ slightly. Sometimes the contract contains a list of submittals which are part of the specification. The list will also include the:

- items for which shop drawings must be prepared,
- number of copies required, and
- names of those receiving copies for review purposes.

Exhibit 5-7 illustrates the process by means of a flowchart.

There are two basic clauses in the contract which establish the submittal requirement:

1. Specifications and Drawings for Construction
2. Material and Workmanship

FAR 52.236-21

The SPECIFICATIONS AND DRAWINGS FOR CONSTRUCTION clause requires that shop drawings be submitted. Shop drawings* include such items as:

- Drawings
- Layouts
- Descriptive Literature
- Schedules
- Performance and Test Data
- Diagrams
- Schematics
- Illustrations
- Letters of Certification

Every effort must be made to process submittals at the earliest date possible. Most agencies have established policies on what constitutes timely action regarding submittal approvals.

CQC Procedure for Submittals

If the contract provides for Contractor Quality Control (CQC), the contractor may be responsible for the scheduling and control of submittals. CQC is tailored to each contract and is agency specific as to the extent of the requirements. (See Exhibit 4-3.) Under CQC, the contractor will provide you with the procedures for submittal approval:

- Numbers to be assigned to submittals,
- Dates submittals are due,
- Dates by which Government approval is needed,
- Dates that the materials, equipment submittals, etc. are needed at the job site.

Shop Drawing Approvals

As soon as practicable after award, the contractor must furnish

- a list of all shop drawings which will be submitted for approval,
- an estimate as to when they are to be submitted.

Contractors ① must coordinate all shop drawings and ② review them for accuracy, completeness, and contract compliance before submitting to the CO.

* VA classifies drawings, layouts, diagrams, & schematics as "shop drawings" and balance as "submittal literature."

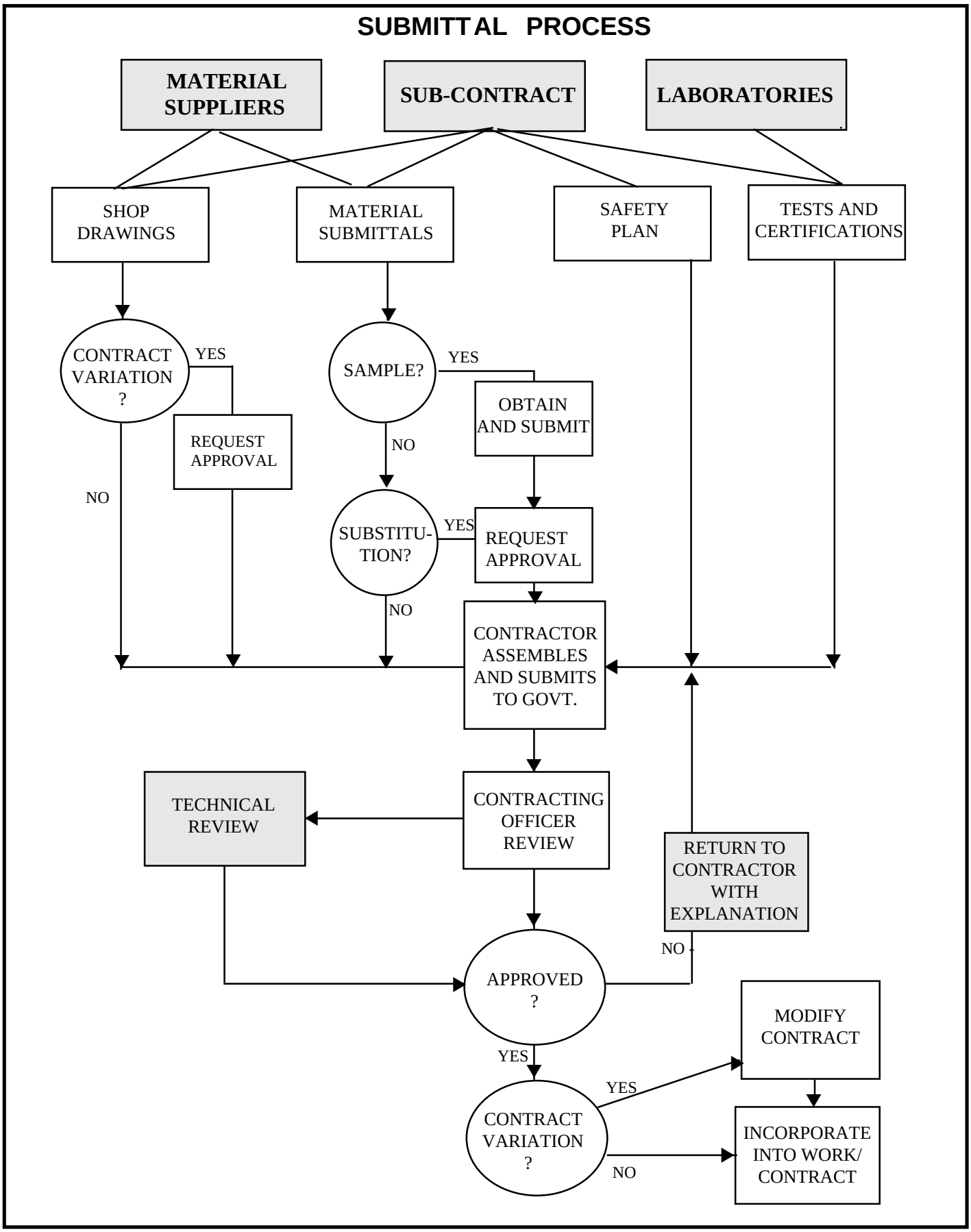

SUBMITTAL PROCESS
MATERIAL SUPPLIERS
SUB-CONTRACT
LABORATORIES
SHOP DRAWINGS
MATERIAL SUBMITTALS
SAFETY PLAN
TESTS AND CERTIFICATIONS
CONTRACT VARIATION ?
YES
NO
REQUEST APPROVAL
SAMPLE?
YES
NO
OBTAIN AND SUBMIT
SUBSTITU-TION?
YES
NO
REQUEST APPROVAL
CONTRACTOR ASSEMBLES AND SUBMITS TO GOVT.
TECHNICAL REVIEW
CONTRACTING OFFICER REVIEW
RETURN TO CONTRACTOR WITH EXPLANATION
NO
APPROVED ?
YES
MODIFY CONTRACT
YES
CONTRACT VARIATION ?
NO
INCORPORATE INTO WORK/ CONTRACT

Exhibit 5-7

CO(T)R Responsibility

The CO(T)R is usually responsible for securing and expediting review of all necessary shop drawings requiring Government action. All unsatisfactory shop drawings must be returned to the contractor for correction and resubmission through thecontracting officer. The drawings are also reviewed by the A/E.

It is essential that shop drawings be reviewed expeditiously. To maintain adequate control, you must institute a systematic suspense and follow-up procedure.

Any variations from contract requirements must be described by the contractor in writing, at the time of submission. Based upon the contractor's explanation, you will:

- Approve or disapprove minor variances,
- Determine if a modification should be issued to allow for a non-minor variance, taking into account the effect on price, or
- Disapprove the variance.

Exhibit 5-8 illustrates the approval process.

(**Note of Caution**: Approvals, other than those considered to be minor, are granted only after consideration of protection of the competitive bidding system and/or those situations illustrated in Exhibit 5-9.)

FAR 52.236-5

The MATERIAL AND WORKMANSHIP clause must be included in all fixed price construction contracts. It stipulates that:

1. "The Contractor shall obtain the CO's approval of the machinery and mechanical and other equipment to be incorporated in the work."
2. "When required by this contract or by the CO, the Contractor shall also obtain the CO's approval of the material or articles which the Contractor contemplates incorporating into the work."

These approvals are usually obtained as part of the process for obtaining approvals of shop drawings. The clause also provides that:

- All equipment, material, and articles used must be new and best suited for their intended use.
- The CO may require the removal of any employee who is incompetent, careless, or otherwise objectionable.
- All work shall be performed in a skillful and workmanlike manner.

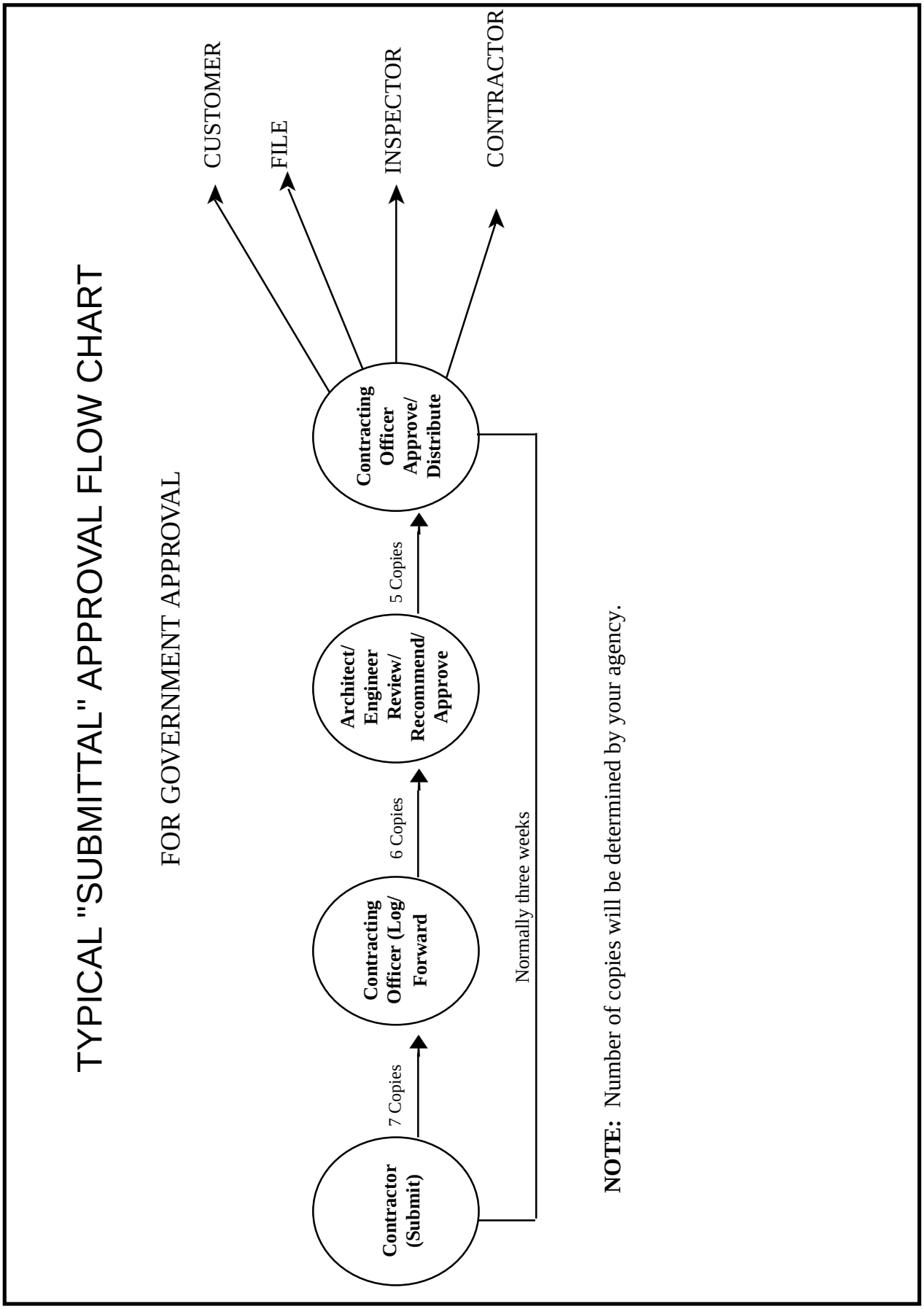

TYPICAL "SUBMITTAL" APPROVAL FLOW CHART
FOR GOVERNMENT APPROVAL
Contractor (Submit)
7 Copies
Contracting Officer (Log/ Forward
6 Copies
Architect/ Engineer Review/ Recommend/ Approve
5 Copies
Contracting Officer Approve/ Distribute
Normally three weeks
CUSTOMER
FILE
INSPECTOR
CONTRACTOR
NOTE: Number of copies will be determined by your agency.

Exhibit 5-8

On most construction projects, the number of submittals which must be approved is considerable. On large construction projects, it can be overwhelming. It is not practical to expect that contracting officer personally will approve all of the submittals. Therefore, the contracting officer relies heavily on the recommendations of the CO(T)R and the inspection staff who are responsible for the technical evaluation of the material and equipment that are proposed for use by the contractor.

The specifications identify the materials requiring sample submissions. A list is compiled by the contractor from the specification, and eventually becomes what is called the "Submittal Log" which is used as a working guide for the contractor to ensure that timely submission and approval is accomplished.

Certifications

The specification sometimes provides that approval of certain materials involves a certification, such as:

- Paint
- Asphalt
- Roofing Materials

If such certifications are required, the specification will state the quality levels required for materials and workmanship. To assure adherence to the specification, controls such as sampling or testing are employed. The specification may also identify which of these controls are to be performed by

- a laboratory,
- the Government, or
- the contractor if CQC is required,

as well as identifying those which require any additional certifications.

For items that require laboratory testing, the standards used by the laboratories must be acceptable, **for example:**

- American Society for Testing and Materials (ASTM)
- American National Standards Institute (ANSI)

Testing laboratories have their procedures and equipment inspected and approved at periodic intervals by a qualified national authority, (i.e., Cement and Concrete Reference Laboratory), in order to maintain their certification. A list of approved laboratories must be maintained in your office in order to verify that the laboratory chosen by the contractor to perform testing is an approved facility.

Approvals may also be obtained ① by using a manufacturer's certification or ② by certification of the ASTM, rather than inspection of a physical sample or laboratory test. In such instances the contractor must deliver the materials to the work site

- properly identified,
- bearing labels listing the product by name, the applicable Federal Specification number, and
- any other identifying information, such as color, type and size.

The Government inspector must be able to identify the material with the certification. The A/E, or drafter of the specification will be furnished copies of all certifications.

Substitutions

Frequently, the contractor will request that a substitution be allowed. Such requests are time consuming and require a great deal of careful analysis. The contracting officer must rely on the technical skills of the inspection staff, as well as that of the A/E in determining if the substitution is acceptable. Exhibit 5-9 gives examples of types of permissible substitutions.

Remember that specifications are written

1. not only to describe what is required to do a satisfactory job,
2. but also to provide an equitable basis upon which competing contractors may bid.

Contractors must be able to rely on the Government's enforcement of the specification as written; otherwise bids could be submitted which could not be compared, with each contractor free to modify the specification to their own particular advantage.

PERMISSIBLE TYPE SUBSTITUTIONS

- Items that were specified are not obtainable from normal sources.
- Method specified is beyond the capability of the contractor to perform, so that enforcement of the specified requirement raises the possibility of having to terminate the contractor for default. (In this case the Contracting Officer would have to make a determination that material substitution would be more preferable as a remedy than Terminating for Default.)
- The material or equipment fulfills the purpose of the design as well, or better than, the specified material or equipment.

Exhibit 5-9

When you have been informed by the inspection staff,the construction manager, and/or the A/E that a proposed substitution is desirable and you have determined that it is permissible, a bilateral contract modification should be prepared for the contracting officer's signature. The **modification** must set forth

- a description of the item or items, along with
- any price increase or decrease (or absence thereof), and/or
- change in time that has been agreed upon.

Accident Prevention

FAR 36.513

The Occupational Safety and Health Act of 1970 is implemented by the clause, ACCIDENT PREVENTION. The act was passed to assure that so far as possible, every working man and woman in the nation work under safe and healthful working conditions, and to preserve our human resources. The provisions of the Act are summarized in Exhibit 5-10.

SUMMARY OF THE OCCUPATIONAL SAFETY AND HEALTH ACT OF 1970

- Encourages employers and employees to reduce hazards in the workplace and to create new or improved existing safety and health programs.
- Establishes separate but dependent responsibilities and rights for employers and employees to achieve better safety and health conditions.
- Establishes reporting and recordkeeping to keep track of job-related injuries and illnesses.
- Develops mandatory job safety and health standards and enforces them.
- Encourages the States to assume the fullest responsibilities for establishing and administering their own occupational safety and health programs which must be "at least as effective as" the Federal program.

Exhibit 5-10

Basic Clause

The contracting officer has the option of adding an Alternate I paragraph to the Accident Prevention clause for work of long duration or hazardous nature. Exhibit 5-11 describes the basic clause requirements. Exhibit 5-12 shows the Alternate I additions.

A contract containing the basic clause requires oversight by observation and daily records of inspection. It is discussed at the Preconstruction Conference so that the contractor, prior to beginning the work, has a full and complete understanding of the requirements.

ACCIDENT PREVENTION CLAUSE

FAR 52.236-13

The contractor must provide for protecting the lives and health of employees and other persons, preventing damage to property, materials, supplies and equipment by:

- Providing appropriate safety barricades, signs, and signal lights;
- Complying with standards issued by the Secretary of Labor;
- Ensuring that any additional measures the Contracting Officer determines to be reasonably necessary for this purpose are taken;
- Maintaining accurate records on all accidents incident to work performed;
- Responding to any corrective action directed by the contracting officer immediately.

Exhibit 5-11

ACCIDENT PREVENTION CLAUSE ALTERNATE I

If the contract involves work of a long duration or is of a hazardous nature, the following may be added:

Before commencing the work, the Contractor shall:

(a) Submit a written proposal (plan) for implementing the clause, and

(b) Meet with representatives of the Contracting Officer to discuss and develop a mutual understanding relative to administration of the overall safety program.

Exhibit 5-12

Alternate I Plan

Alternate I of the clause requires that after the contract is awarded, the contractor must submit an implementing plan for approval by the contracting officer. For purposes of reviewing the contractor's plan, consider that this may be the first exposure that the contractor has had to an organized safety program where the requirements are a contractual obligation.

You should view the plan as a submittal, except that instead of a "pass-fail", your review will result in comments, with deficiencies annotated. The contractor must be advised that either the Accident Prevention Plan is acceptable or must be revised. Exhibit 5-13 illustrates typical subject matter which may be addressed in the contractor's safety plan submittal.

The type of project, complexity, and the hazardous nature of the construction project will dictate the amount of details required in any given plan.

SAFETY PLAN SUBJECT MATTER

- The contractor's plan for providing frequent and regular safety inspection of the work site, including materials and equipment, by a competent person.
- Regular safety meetings to be held for personnel, including information on frequency and subject matter.
- A job hazard analysis from the contractor's viewpoint, identifying the hazards expected to be encountered on the job. The analysis should include the proposed methods and techniques for accomplishing a safe environment.
- Specific details and additional safety requirements which may be necessary in dealing with toxic waste when the project involves certain DOE work and other hazardous project sites.
- Names of the individuals responsible for safety enforcement at the job site.
- Manner in which the contractor plans to maintain records and report exposure data in all accidents resulting in death, traumatic injury, occupational disease and damage to property, material, supplies and equipment incident to the work.
- Details concerning precautions to be taken in storing and disposing of hazardous wastes.
- Details concerning personnel protective equipment or clothing to be worn such as ear plugs, respirators, safety eyeglasses, hard hats, safety shoes, goggles etc.
- Copies of notices to be posted in immediate areas containing any safety hazards.

Exhibit 5- 13

The Accident Prevention Plan then becomes an agenda for a **Pre-Work Safety Conference**. The meeting should be conducted in the same manner as the Preconstruction Conference (See Section 4.5).

1. Minutes of the meeting must be distributed, detailing the items discussed.
2. If revisions of the plan is to be made, establish a time frame for resubmittal.
3. Remind the contractor that work cannot begin until the plan is approved.
4. Furnish accident report forms (agency specific) along with instructions to the contractor. This can be done either at the safety meeting, if one is held, or as soon as possible after award, but before work begins.

Less discussion will be required with a contractor who has previously performed work under the provisions of the Alternate I clause, and whose safety record on previous contracts has been good.

The Accident Prevention Plan must provide for

> frequent and regular safety inspections of the work sites, materials, and equipment by competent persons.

Emphasize the <u>importance of daily file documentation</u> regarding safety matters to those responsible for actual field inspection. Your job entails keeping the contracting officer advised of all safety matters which are brought to your attention.

Accidents

Contractors are required to <u>report all accidents</u>. Accidents resulting in lost time and/or damage to property costing $700 (varies by agency) or more, and which occur incidental to work performed under the contract, require immediate reporting. The A/E should also be advised.

You or a person so delegated should verifiy that the contractor's accident cause analysis in the report is correct, and that corrective measures taken are adequate to prevent recurrence.

5.4 Specialty Clauses for Construction

Construction contracts may contain several unique clauses, including agency specific clauses, that are necessary due to the nature of the construction project.

Insurance

FAR 52.228-5

INSURANCE-WORK ON A GOVERNMENT INSTALLATION is mandatory in a fixed priced construction contract when

- the contractor performs on Government property, and
- the contract is expected to exceed the small purchase limitation.

The clause provides that the contractor must maintain during the entire period of the contract, a minimum stated amount of insurance.

Exhibit 5-14 illustrates the kinds of required insurance coverages, as well as the minimum dollar amounts of coverage on contracts expected to exceed the small purchase limitation.

The clause may be included in contracts expected to be less than the small purchase limitation if the contracting officer elects to do so. In this case, the dollar amounts of minimum coverage are not mandatory.

MINIMUM INSURANCE COVERAGE

FAR 28.307-2

Kind of Coverage	Minimum Dollar Amount
Workman's Compensation and Employers' Liability (including occupational diseases).	$l00,000
Automobile Liability	$200,000 per person $500,000 for bodily injury per occurrence $ 20,000 for property damage per occurrence
General Liability	
bodily injury	$500,000 per occurrence
property damage	Only required by agency regulation

Exhibit 5-14

Note that there are **minimum** dollar coverages specified for various elements. These may be increased if there is justification to do so.

The clause contains a flowdown requirement for subcontractors which you must also monitor during performance in order to ensure that the Government is protected at all times, not only by the prime contractor's insurance, but by subcontractor insurance coverage as well. Examples of monitoring would include:

- obtaining certification and subcontractor's proofs of insurance,
- reviewing for adequacy of coverage,
- tracking expiration dates,
- processing cancellations.

Performance of Work

FAR 52.236-1

For contracts expected to exceed $ 1 million dollars, you must administer the PERFORMANCE OF WORK BY THE CONTRACTOR clause. It assures that the contractor is actively engaged in construction, either by trade or general contracting, rather then serving as a middleman.

FAR 36.501

The percentage amount that the contractor's own forces are required to perform is left to the discretion of the contracting officer. Some agencies use 15% (VA) or 20% (NAVY), but the amount should be no lower than 12 percent. The following specialties are usually subcontracted and therefore should not be considered when establishing the amount of work required to be performed by the contractor:

- Plumbing
- Heating
- Electrical

If you are administering a contract containing the Performance of Work by the Contractor clause, there are several ways of determining if the contractor is in compliance:

- By review of the contractor/subcontractor weekly payrolls;
- By close daily observation of the workers being employed on the job and annotating your observations in the daily log sheets; or
- Reviewing the list of subcontractors which the contractor submitted upon award.

Superintendence

At all times during performance of the construction contract, and until the work is completed and accepted, the contractor or authorized superintendent must directly superintend the work.

The person authorized to superintend the job becomes your single contact in construction matters with the prime. The identity of the superintendent is generally made known at the Preconstruction Conference, which is an excellent opportunity to

- define the responsibilities of the superintendent,

- establish boundary lines of authorities for both parties, and
- establish a dialog, setting the tone of your relationship.

Superintendence by this individual embraces

- quality control
- maintenance of progress
- safety
- administration functions

which must be performed in accordance with contract requirements.

FAR 52.236-6

Language in the SUPERINTENDENCE BY THE CONTRACTOR clause is sufficiently strong to make it clear that a contracting officer's determination of unsatisfactory superintendence (particularly in the areas of safety or quality of workmanship) would necessitate **replacement of the superintendent** by the contractor. (Actual replacement is provided for in the Material and Workmanship clause.)

Permits and Responsibilities

The PERMITS AND RESPONSIBILITIES clause identifies certain contractor responsibilities, as listed in Exhibit 5-15.

PERMITS AND RESPONSIBILITIES

FAR 52.236-7

Contractor is responsible for:

- Obtaining and necessary licenses and permits;
- Complying with Federal, State, and municipal laws, codes, and regulations;
- All damages to persons or property due to the negligence of the contractor;
- Implementing safety and health precautions to protect the work, the workers, the public and the property of others.
- All materials delivered and work performed until completion and acceptance of the entire work, except for any completed unit of work which may have been accepted under the contract.

Exhibit 5-15

Your contract administration duties include verification that the contractor is complying with the items included in Exhibit 5-15. The **amount of administration** will depend on the

- nature of the construction project, and
- type of equipment to be used.

Outside inspection by state or other representatives (e.g. OSHA) may be required for projects like the following:

- handling and storage of explosives.
- operation of steam boilers.
- operation of cranes near power lines.

Contracting Officers may want to involve the A/E in any cooperative efforts with the various outside officials in dealing with such matters.

Other Contracts

FAR 52.236-8

The OTHER CONTRACTS clause is self explanatory and states that

> "the Government may undertake or award other contracts for additional work at or near the site of the work under this contract. The Contractor shall fully cooperate with the other contractors and with Government employees and shall carefully adapt scheduling and performing the work under this contract to accommodate the additional work, heeding any direction that may be provided by the Contracting Officer. The Contractor shall not commit or permit any act that will interfere with the performance of the work by any other contractor or by Government employees."

Protection of Existing Vegetation, etc.

FAR 52.236-9

The PROTECTION OF EXISTING VEGETATION, STRUCTURES EQUIPMENT, UTILITIES, AND IMPROVEMENTS clause provides that the contractor is to

- protect all surrounding areas from damage on, or adjacent to the work site; and
- only remove those trees specifically authorized to do so.

If damages occur, the contractor is required to repair or replace the property, including that of a third party, resulting from failure to comply or failure to exercise reasonable care in performing the work.

Operations and Storage Areas

FAR 52.236-10

One of your first acts in administering the contract is to assign work space to the contractor. The area should be fenced off and maintained by the contractor during the performance period. Operation of this work area is governed by the OPERATIONS AND STORAGE AREAS clause. You should make or direct someone to make regular visual inspections which will be sufficient to uncover any contractor violations.

The clause further restricts the contractor as follows:

1. Can only use established roadways; or temporary roadways as authorized by the Government.

2. Vehicles are not permitted to be loaded beyond the loading capacity recommended by the manufacturer of the vehicle or prescribed by any Federal, state, or local law or regulation.
3. Curbs and sidewalks must also be protected from damage, otherwise they must be repaired or replaced by the contractor.

Your agency may supplement this clause by requiring the contractor to confine operations (including storage of materials) on Government premises to areas authorized or approved by the contracting officer. The force of the clause holds and saves the Government, its officers and agents, free and harmless from liability of any nature occasioned by the contractor's performance.

Use and Possession

FAR 52.236-11

The Government frequently has a need to use and possess a building or a facility prior to actual completion of the contract. The USE AND POSSESSION PRIOR TO COMPLETION clause (See Exhibit 5-16) spells out the rights of the parties in this situation. Such early possession is common practice.

If you intend to respond to a customer request to occupy a facility prior to completion, you must first notify the contractor in writing of the Government's intention to take interim possession.

Implied acceptance, by acts such as early possession which are inconsistent with the contractor's ownership, is somewhat complexbecause of the language of the clause bearing on the issue. For this reason, you will want to:

1. Perform, or have performed, a careful inspection of the premises prior to occupancy.
2. Make records of conditions at the time of occupancy. Document mutual agreement with contractor of conditions whenever feasible.
3. Document your file as to the work to be completed prior, and subsequent to the occupation.

In order to preclude a dispute at a later date, it is important that you be accurate and complete. The contractor is not responsible for restoration and repair of damage resulting from Government occupancy.

USE AND POSSESSION PRIOR TO COMPLETION

- The Government has the right to take possession of a building or facility that, even though incomplete, is usable for the purposes intended;
- Failure to accept the contractor's work does not imply that occupancy is barred, as the clause states that "such possession or use shall not be deemed an acceptance of any work under the contract;"
- Before taking possession, the contractor will be provided a "Punch List" on portions of the work to be performed or corrected prior to acceptance;
- Failure to include an item on the list that should have been included, does not relieve the contractor of responsibility;
- Once the Government has possession, the contractor no longer has responsibility for loss or damage to the work in spite of the language of the Permits and Responsibilities clause described earlier.
- If prior possession or use causes the contractor any delays equitable adjustment in contract price or time is due the contractor.

Exhibit 5-16

Your customer should be advised that early possession will have an effect on warranty and liquidated damages requirements:

- The prime contractor's standard construction one-year warranty under the clause commences either;

  (1) Upon final acceptance of all contract work, or

  (2) Taking possession of any part of the work before final acceptance.

- Liquidated damages must either be renegotiated to allow for the early possession, or eliminated entirely.

5.5 Government-furnished Property

FAR 45.101(a)

Government-furnished property (GFP) means

> "property in the possession of, or directly acquired by, the Government and subsequently made available to the contractor."

Government-furnished property usually comes into the possession of a construction contractor in one of two ways:

1. Furnished directly to the contractor by the Government, or
2. Acquired by the contractor on behalf of the Government, i.e.

   Construction material or equipment may be purchased by the contractor and stored off site until ready for use. If the contractor seeks payment for the stored materials, title passes to the Government at the time of payment.

<u>In construction, GFP is most often in the form of equipment</u> (rather than supplies) to be furnished in conjunction with building a facility.

- Government may purchase equipment through its supply sytem and provide it to the contractor for installation.
- Clauses covering the installation of the equipment, maintenance, and warranties are written into the contract, assigning specific responsibilities to the
  - Government,
  - prime contractor, and
  - equipment supplier.
- You may identify this type of GFP to be furnished by referring to the technical specification.

FAR 45.505-7

For Government <u>real property</u>, the contractor shall maintain an itemized record of the description, location, acquisition cost, and disposition of all construction or alterations.

FAR 45.302-3(a)(2)

Also, facilities may be provided to a contractor for construction.

Refer to Exhibit 5-17 in determining which clauses may be applicable when GFP is furnished to the contractor. Your agency most likely requires the use of additional agency specific clauses.

CLAUSES APPLICABLE TO GOVERNMENT FURNISHED PROPERTY		
FAR Clause	**Title**	**Application**
(52.245-1)	Property Records	Use in conjunction with the basic clause.
(52.245-2)	Government Property (Fixed-Price Contracts)	Basic clause.
(52.245-3)	Identification of Government-Furnished Property	Basic clause.
(52.245-4)	Government-Furnished Property (Short Form)	Use when acquisition cost of the GFP is $50,000 or less.
(52-245-6)	Liability for Government Property	Use if demolition is required in conjunction with a construction project.

Exhibit 5-17

Timeliness

The timely delivery of the GFP may be critical to the contractor's performance. However, it is sometimes difficult to set forth a schedule for delivery of Government property. Also, in the event that the property is furnished but is not suitable, the contractor's progress may be interrupted or delayed. In either case, the contractor may be entitled to additional time, or an adjustment in price.

Property Administrator

Subsequent to award of a contract providing for GFP, it will be necessary to appoint a Property Administrator to handle all matters concerning the property to be furnished. That individual is responsible for:

- monitoring and reviewing the contractor's handling of GFP and
- keeping you informed of any deficiencies or problems.

As contract administrator, your role is to assure that the Government property is furnished **on time** through the appointed Property Administrator. Monitoring of the contract is also vital in respect to coordination between all parties involved.

Liability

Title to GFP remains with the Government. The contractor bears responsibility for risk of loss or damage to any of the property. Contractors are not responsible for ① reasonable wear and tear to GFP or ② consumption in the performance of the work.

5.6 Subcontracting Plan

FAR 19.702

Construction contracts awarded to large businesses which

- exceed $1 million and
- have subcontracting possibilities

must include a subcontracting plan. When a subcontracting plan is part of a contract, both you and the contractor have specific responsibilities. Exhibit 5-18 outlines the Government's responsibility.

THE SUBCONTRACTING PLAN - GOVERNMENT RESPONSIBILITY

FAR 19.705-6

- Notify SBA of award.
- Send SBA copy of contract and plan.
- Forward a copy of the plan (or determination of no plan) to the appropriate contract administration office if different than the contracting office. The plan must be incorporated into the contract.
- Initiate collection of liquidated damages when warranted for failure to comply with the plan.
- Assist the contracting officer in evaluating the plan during performance.
- Monitor, evaluate and document contractor performance under the plan.
- Provide contractor performance information to the contracting officer as necessary.
- Make recommendations about the contractor's performance.

Exhibit 5-18

As for the contractors, they must make a "good faith effort" to comply with their approved subcontracting plan. Failure to make a "good faith effort" means the willful or intentional

- failure to perform to the requirements of the plan or
- action to frustrate the plan.

FAR 19.705-7

Proven failure requires assessment of liquidated damages and may be considered material breach of the contract. Exhibit 5-19 illustrates a series of questions that you might ask yourself when analyzing a contractor's performance under the plan.

QUESTIONS TO ASK WHEN ADMINISTERING SUBCONTRACTING PLANS

Are separate goals established and monitored for both Small and Small Disadvantaged Business (SDB) concerns?

Is the name of the plan's administrator current, and are the individual's duties fully described?

Is the contractor requiring subcontractors to offer further subcontracting opportunities and to include the Utilization of Small Business Concerns and Small Disadvantaged Business Concerns* clause in their contracts?

Is the contractor cooperating with Government efforts to determine compliance?

Is the contractor submitting required reports which document subcontracting efforts and record the achievements?

Exhibit 5-19

FAR 19.704(a)(4)

The contractor will require all subcontractors (except small businesses) that receive a subcontract in excess of $1 million to adopt a plan similar to the contractor's subcontracting plan.

GOOD FAITH EFFORT

Greg knows that a Subcontracting Plan is included in the contract to administer. This is something that will require attention when reviewing the List of Subcontractors and the weekly submitted payrolls. It must be established that the contractor is either abiding by the plan submitted or is at least making "a good faith effort" to do so. Reviewing payroll records, and listings of Subcontractors should be a good indicator as to how well the contractor is doing. Conducting employee interviews is another means of checking.

* In fact, this clause is required in all subcontracts exceeding the small purchase threshold. Examples of other "flowdown" clauses meeting the same threshold include:

- Notice and Assistance Regarding Patent and Copyright Infringement FAR 52.227-2(c)
- Authorization and Consent FAR 52.227-1(b)

5.7 Buy American Act Compliance

FAR 25.202

The Buy American Act requires that, with certain exceptions (See Exhibit 5-20), only domestic construction materials may be used by the contractor. When an exception is invoked and the use of foreign materials is allowed, the excepted materials shall be listed in the contract.

The Act applies to all Federal contracts for construction, alteration, or repair, to any public building or public works project within the United States.

EXCEPTIONS TO THE BUY AMERICAN ACT	
1. Cost would be unreasonable;	FAR 25.203
2. Agency head determines that use of a particular domestic construction material would be impracticable; or	FAR 25.202(a)(2)
3. Head of the contracting activity determines that the material is not sufficiently mined, produced, or manufactured in the U. S. (See microprocessor chips as example for construction.)	FAR 25.108(d)(1)
4. EC construction materials under contracts over $6,500,000	FAR 25.402(a)(4i)

Exhibit 5-20

FAR 52.225-5

The BUY AMERICAN ACT-CONSTRUCTION MATERIALS clause defines the following terms:

Construction Material:

Articles, materials, and supplies brought to the construction site for incorporation into the building or work.

An item brought to the site pre-assembled from articles, materials, or supplies.

Emergency life safety systems (emergency lighting, fire alarm, and audio evacuation systems) which are discrete systems incorporated into a public building or work and which are produced as a complete system regardless of when or how the individual parts or components of such systems are delivered to the construction site.

Component:

Articles, materials, and supplies incorporated directly into construction materials.

Domestic Construction Material:

1. An unmanufactured construction material mined or produced in the United States*; or

* NOTE: For supply domestic includes Canada, but not for construction.

2. A construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components.

The prime contractor has the responsibility to inform subcontractors of the Buy America Act restrictions and is therefore liable for any violation.

Two Step Test

To determine if a construction material is considered "domestic", you must, therefore, conduct a two step test, which consists of:

STEP 1. Confirming that it was mined, produced, or manufactured in the US, and if the latter,

FAR 25.302(c)

STEP 2. Determining if the cost of its components mined, produced, or manufactured in the US exceeds 50% of the cost of All its components.

Additional Criteria

When analyzing construction materials for a compliance determination, you must also take into consideration the following additional criteria:

- Materials, such as forms and equipment delivered to the construction site, but not incorporated into the building, are not included.
- Other materials that are "manufactured" at the job site prior to being incorporated, such as sand, water, cement, and aggregate are not included.

When applying cost, for purpose of the clause, costs are considered to be the cost to the manufacturer or assembler of the component, exclusive of profit, overhead, labor, or any other type of burden.

The determining factor in making your decision as to compliance, is the point at which the material is incorporated into the work.

For example: A "pre-hung" door with a panel, molding and hardware components can be considered construction material if placed into the work as a complete unit, even though it is put together at the site. Conversely, if the molding, hinges, panel and locksets are incorporated into the work in piecemeal fashion, each element can be considered "construction material."

Violations

FAR 25.204

Agencies, upon a determination that a contractor has violated the Buy American Act - Construction Materials, shall make the name of the contractor and the nature of the violation public. <u>No other contract can be awarded to that contractor within a 3 year period.</u>

FAR 25.403(e)

Construction contracts are not subject to the policies and procedures of the Trade Agreements Act of 1979, as amended, but see the following.

European Community (EC) & North American Free Trade Agreement (NAFTA)

A Memorandum of Understanding between the US & the EC and the North American Free Trade Agreement between the US, Canada, & Mexico exempt EC and NAFTA construction materials from the Buy American Act under construction contracts over $6,500,000. You must include the clause

FAR 25.205(b)

Buy American Act-Construction Materials under European Community and North American Free Trade Agreements.

in all solicitations exceeding the threshold. Under the clause "EC *(or NAFTA)* construction material" means:

FAR 52.225-15

> " a construction material that (a) is wholly the growth, product, or manufacture of an EC *(or NAFTA)* country or (b) in the case of a construction material which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed in an EC *(or NAFTA)* country into a new and different construction material distinct from the materials from which it was transformed."

FAR 25.1002(a)(2)

Agencies shall not award contracts under $6,500,000 for <u>sanctioned EC construction</u> which is defined as

FAR 25.1001

> "construction to be performed in a sanctioned member state of the EC and the contract is awarded by a contracting activity located in the US or its territories."

FAR 25.1002(c)

However, the head of an Agency may authorize award of a contract for sanctioned EC construction if it is in the public interest.

KNOW THINE OWN CLAUSES

In his meeting with the team of individuals who are responsible for the administration of the contract, Bill Gibson, the contracting officer, tasked everyone to be knowledgeable about the clauses contained in the contract.

Why was he insisting on everyone knowing the clauses?

Because he recognized that just knowing <u>what</u> clauses are in the contract is insufficient. You must be knowledgeable concerning <u>WHAT</u> <u>THEY</u> <u>SAY</u> in order to perform the required tasks.

In other words, just how well you know and understand the construction clauses will ultimately determine how effective your performance on the job will be.

CHAPTER 6

DAY TO DAY CONTRACT ADMINISTRATION

THE NEW ADMINISTRATOR

John Thomas has just been transferred to a different branch within the small contracts "cradle to grave" organization. His duties now include administering several active construction contracts. As a procurement analyst, this is the first time he has been assigned to the administration side of contracts. In assuming the position he inherited some ongoing contracts, as well as a new one entitled "Repair and Rehabilitation of Building 560" in the Contracts Training Center Complex. Someone else in the office is handling the larger Contract Training Center contract, which is usually referred to as "The CTC Project."

Bill Gibson, John's supervisor walked into the office and greeted him with a smile. "Well, I see that you are all settled in your new job, and from the looks of your "in" basket you are gainfully employed," he joked. "I thought I would stop by and see if you have received the new contract on the CTC complex." "You bet!" replied John. "I am just going over it now. I have been studying all of the clauses and getting familiar with the plans and specs."

"Sounds to me like you're on the right track," replied Bill. "I want you to keep me apprised of the status on a regular basis. Let me know of any problems that develop. Has the project manager been in to see you yet?" Bill said.

"No, not yet." replied John. "I understand that the Construction Division has lined up a good crew of inspectors for the project. The same crew will also be involved in the larger CTC project. I am anxious to get together with them. A meeting of all persons involved is scheduled for tomorrow and I am jotting down some of the things I would like to discuss."

"Sounds good. I'll see you later." Bill replied as he waved and walked out the door.

John went back to work. He made a list of all the things in his "in" basket so that he could organize the tasks as to priority. "How am I going to keep track of all this with so many things going on all at the same time?" he thought to himself. Most of the papers had "URGENT" red tags stapled to them. There were invoices tucked in large red envelopes, charts, drawings, reports, performance schedules, insurance papers, correspondence, samples, payrolls, request for change orders, performance evaluations and numerous other documents. "Where do I begin?" he asked himself.

*Where would **you** begin if you were in John's place?*

COURSE LEARNING OBJECTIVES

Overall: Perform all actions required and necessary to assure contract compliance.

Individual:

6.1 Review payroll records and conduct interviews with laborers for compliance with Davis-Bacon/ Contract Work Hours and Safety Standards Acts.

- Identify disciplines not covered and take appropriate action to resolve.
- Identify apprentices employed and determine if they comply with restrictions.
- Conduct compliance checks to determine ratios between laborers, helpers, apprentices or trainees.
- Establish labor classifications.
- Identify discrepancies concerning payrolls.
- Report violations to the Department of Labor and take appropriate actions to withhold payments equal to wages found due, suspend payments entirely, or recommend termination.
- Monitor compliance with other labor laws.
  - Copeland Act
  - Occupational Safety and Health Act of 1970 (OSHA).
  - Equal Opportunity (posting requirement).

6.2 Inspect and approve invoice for progress payments for accuracy.

- Verify that progress is satisfactory and to what extent it corresponds with the Government estimate of progress.
- Identify and apply withholdings, deductions, assignments.
- Calculate the amount owed the contractor.

6.3 Identify the level of inspection called for in the contract:

- Contractor Quality Control (CQC)
- Government Quality Assurance (QA)

Perform or have performed inspection as required:

- Reject unsatisfactory work.
- Accept specified divisible work or the complete contract.

6.4 Complete all necessary contract file closeout functions.

- Perform all duties required to evaluate contractor performance.

INTRODUCTION TO DAY TO DAY CONTRACT ADMINISTRATION

Definition

Day-to-day contract administration encompasses the routine tasks involved from the time the contract is awarded until the work has been accepted and final payment made.

Scope

This chapter will provide you with an insight as to what day-to-day business entails in the administration of a construction contract. Certain major topics such as:

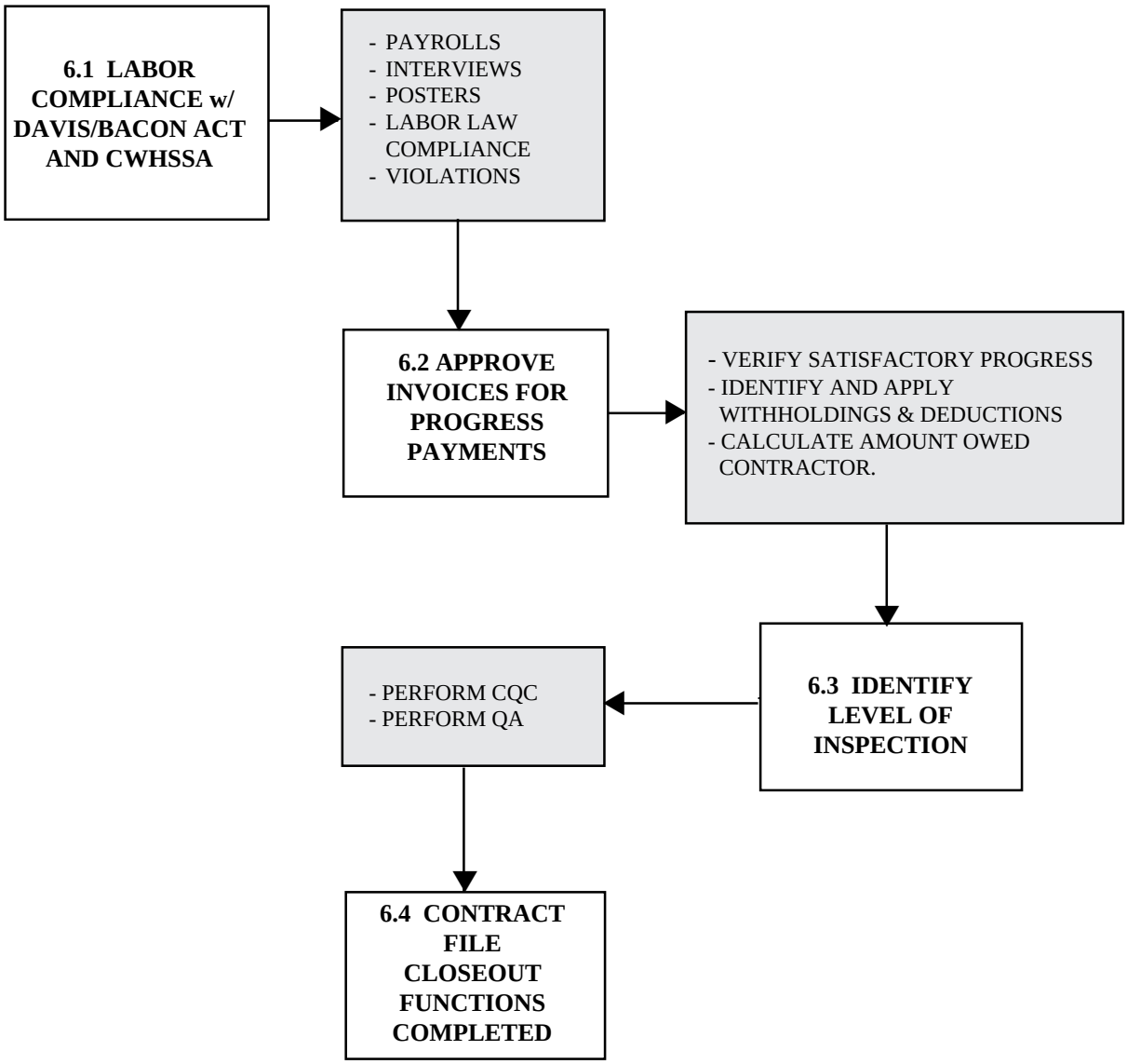
- Delays
- Modifications
- Remedies

are discussed in the final three chapters.

Steps in Performance

The steps in day-to-day contract administration are charted on the next page. Following the flowchart, each step is discussed in turn.

DAY-TO-DAY CONTRACT ADMINISTRATION



DAY-TO-DAY CONTRACT ADMINISTRATION

6.1 Labor Compliance

Federal laws impose employment standards with which contractors must comply. The labor laws which apply to laborers or mechanics performing on construction contracts are:

- Davis Bacon Act of 1931.
- Copeland Anti Kickback Act of 1934.
- Contract Work Hours and Safety Standards Act of 1962.
- Equal Employment Opportunity.
- Fair Labor Standards Act of 1938.
- Occupational Safety and Health Act of 1970.

Your responsibilities in the active enforcement of labor provisions involve primarily the Davis-Bacon Act and the Contract Work Hours and Safety Standards Act (CWHSSA).

Three variables that determine which of the labor laws are applicable are contained in Exhibit 6-1.

VARIABLES WHICH DETERMINE THE APPLICABLE LABOR LAWS

l. The nature of the contract:

- Construction
- Alteration/Repair
- Services
- Demolition

2. The dollar amount of the contract determines the threshold at which the different labor laws are implemented, such as:

Any Dollar Amount	$2,000	$2,500	$l0,000
• Fair Labor Standards Act	• Davis Bacon Act • Copeland Act • Contract Work Hours & Safety Standards Act	• Service Contract Act • Affirmative Action for Handicapped, Special Disabled, and Vietnam Veterans.	• Walsh-Healey Act • Equal Opportunity

3. The geographical location of the project to be constructed.

Exhibit 6-1

Davis Bacon Act

Exhibit 6-2 describes some of the requirements of the DAVIS-BACON ACT clause that you will be required to understand and apply in order to monitor a contractor's compliance with both the Davis Bacon Act (See Chapter 2.4) and the CWHSSA.

Prevailing wage rates issued by the Department of Labor for construction are separate from service contract wage rates. This distinction is based on the economic differences between construction and service labor and the distinctive labor laws for each.

DAVIS BACON ACT CLAUSE

FAR 52.222-6

- All laborers and mechanics employed or working at the site of the work will be paid:
  - Unconditionally, and not less often than once a week;
  - The full amount of wages and fringe benefits (or cash equivalents);
  - At not less than those in the wage determination contained in the solicitation.
- Payment must be made regardless of any contractual relationship between the contractor and such laborers and mechanics.
- Workers shall be paid for the classification of work actually being performed, regardless of skill. (Apprentices are an exception.)
- Laborers performing on more than one classification must be compensated at the rate specified for each classification.
- Whenever the rate prescribed includes fringe benefits not described as an hourly rate, the contractor shall furnish a breakdown of the rates and pay the benefits stated, or an hourly cash equivalent thereof.

Exhibit 6-2

Exhibit 6-3 describes some of the requirements of the CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATIONS clause.

CONTRACT WORK HOURS AND SAFETY STANDARDS ACT

FAR 52.222-4

- The CWHSSA requires overtime pay of one and one-half hours of the applicable basic hourly wage rate for laborers, mechanics, watchman, or guards who work on Government contracts working more than forty hours in one work-week. The requirement is not applicable to fringe benefits if the contractor maintains segregated payment records.

- The clause 52.222-4, CONTRACT WORK HOURS AND SAFETY STANDARDS ACT-OVERTIME COMPENSATIONS, must be in solicitations and contracts when the contract may require or involve the employment of laborers or mechanics.

- The act is monitored by interviews conducted with employees and checking payrolls for overtime compliance.

Exceptions to the Act:

- Construction contracts of $2,000 or less.

- Contracts, other than construction of $2,500 or less.

- Contracts done solely with a foreign country or within a possession under the United States jurisdiction other than a State, territory, or the District of Columbia.

- Contracts, or parts of contracts, for supplies or materials.

- Contracts for transportation by land, air, or water, or for the transmission of intelligence.

- Contracts covering work solely under the Walsh-Healey Act.

Exhibit 6-3

Fundamentals of Davis-Bacon

There are three fundamental concepts contained in the Davis-Bacon Act:

1. What are "prevailing wages"? As described by the Department of Labor, they are
   - basic hourly rates of pay
   - in the area in which the work is to be performed
   - of the majority of those employed in a given construction job classification
   - for similar undertakings.

   Wages are computed on a statistical formula based on the presumption that 30% of those employed in a specific construction job classification earn a given hourly rate, which becomes the prevailing wage for purposes of the law.

2. Who are "laborers and mechanics"? They consist of apprentices, helpers, and journeymen using tools or performing the work of a trade. Sometimes it may be difficult to classify some workers, such as:
   - demolition workers
   - landscape contractors
   - installers of equipment
   - survey crews

   You should not attempt to make a ruling without the assistance of someone within your agency who has specialized experience in dealing with such matters. Rulings are generally issued based on whether the work being done is intimately connected with, or merely incidental to the construction or repair project at hand.

3. What are "Federal construction projects"? It is not necessary for the Federal Government to be undertaking construction which will be used by the Government itself in order to come under the act. Demolition is also sometimes covered under the act. In terms of a broad definition, the Davis Bacon Act covers any bid or contract involving building or buildings, or in earth moving projects above or below water, in which the federal Government has an interest through ownership, participation, or by direct funding.

Responsibility for administration of the Act is shared by four groups, as indicated in Exhibit 6-4.

PARTICIPANTS IN THE DAVIS-BACON ACT PROCESS

Department of Labor:	Establishes operating instructions, determines the "prevailing wage rates", distributes them. Reviews procedures or appeals of rates. (Note: There is no appeal of rates or procedures through the court system.)
Contractors:	Must file detailed reports on wages paid. Responsible for securing modifications of rates or classifications. Contractors may initiate review or appeal procedures for submission to DOL.
Contracting Officer:	Responsible for auditing contractor conformity to the Act. May also initiate appeals, and/or reviews.
Labor Organizations:	May initiate or participate in reviews and appeals of rates. Provide copies of local contract agreements in construction to the Department of Labor. The Department of Labor relies heavily on the bargaining agreements in establishing prevailing wage rates.

Exhibit 6-4

Since the contracting officer is responsible for insuring compliance with the Davis-Bacon Act, your role in the administration of the statutory requirements is very important. Regular checks, such as those listed in Exhibit 6-5, must be conducted to monitor contractor compliance. In the event you detect discrepancies or receive a report of a violation, further or special investigation may be necessary.

METHODS OF COMPLIANCE CHECKING

FAR 22.406-7(b)

- Inspect the work site to determine if the contractor has met the posting requirements for each of the laws.
- Review weekly payrolls submitted by the prime and subcontractors.
- Conduct interviews with laborers.
- Review daily inspection reports.

Exhibit 6-5

Before discussing each of the methods employed in assuring compliance, there are other matters which you or the inspector need to address:

- obtaining acknowledgments from subcontractors that they fully acknowledge their responsibility to comply with all requirements of the labor laws;
- processing requests from contractor to change wage rates;
- requesting job classifications not covered in the contract.

Challenge of Wage Rate(s)

Suppose the entire wage determination in a solicitation is questioned by an offeror. The contracting agency must receive timely notice from the offeror prior to bid opening in order to:

- submit a request to the Department of Labor for an advisory opinion, and if the classification is changed
- amend the solicitation to incorporate the proper wage rate determination(s).

For example:

Contract specified a wage rate classified as “Heavy Industrial” which should have been "Residential.”

A contractor, or prospective contractor, who alleges that the entire wage rate issued is incorrect shall be referred to the Department of Labor for resolution.

Corrected wage rates, issued by the Department of Labor, may be incorporated only through

- an amendment to the solicitation, or
- a modification to the contract

with an appropriate increase or decrease in price.

New Classification

After award of the contract, the contractor or subcontractor may propose to use a classification that was not contained in the solicitation (See Section 2.4).

For example:

Questions frequently arise when a contractor proposes to use “helpers” and finds no such coverage in the contract wage determination.

You must review the contractor’s request for accuracy and appropriateness. In the event of a disagreement, you must

- forward the request to DOL for a determination, along with
- a written report containing the contractor's views and
- the contracting officer’s recommendation.

Exhibit 6-6 presents a process chart describing procedures you must follow if a contractor submits a request for an additional classification.

PROCEDURES FOR PROCESSING CLASSIFICATION REQUEST

FAR 22.406-3

- Contractor must submit a request in writing to the Contracting Officer, using SF 1444.
- Review the wage determination contained in the contract. If there is one that can be used to cover the work performed and it is satisfactory to the contractor, it may be used, subject to approval by the DOL.

  Example: You may propose to use "crane operator" classification in lieu of "drag line operator."

- The proposed classification may be new, a reclassification, or it may be one used locally. You may verify by contacting the local union hall, or by calling DOL.
- Determine that any proposed rate conforms with other rates in the contract.

  Example: The listing of a "crane operator" at one wage rate but proposing an additional "dragline operator" classification at a significantly different rate.

- Differences between you and the contractor should be resolved, if possible, by obtaining additional information or discussing the problem, or both.
- The DOL will approve, modify, or disapprove within 30 days of receipt, or will notify the CO within a 30 day period that additional time is needed.
- Distribution:
  Original and supporting data to DOL.
  Copy to the CO(T)R.
  Copy to the contractor.
  Copy to the contract file.

Exhibit 6-6

SF 1444 (See Exhibit 6-7), Request for Authorization of Additional Classification and Rate, must be forwarded to DOL in order to obtain the appropriate classification and wage rate. Once approved or modified by DOL, the contractor must post the DOL decision at the job site and make any payroll and payment adjustments, retroactively if necessary, to the affected worker(s). The contract must be modified accordingly.

FORM APPROVED OMB NO. 9000-0069

REQUEST FOR AUTHORIZATION OF ADDITIONAL CLASSIFICATION AND RATE

CHECK APPROPRIATE BOX
☐ SERVICE CONTRACT
☐ CONSTRUCTION CONTRACT

NOTE: THE CONTRACTOR SHALL COMPLETE ITEMS 3 THROUGH 16 AND SUBMIT THE REQUEST, IN QUADRUPLICATE, TO THE CONTRACTING OFFICER

1. TO: ADMINISTRATOR, Employment Standards Administration
WAGE AND HOUR DIVISION
U. S. DEPARTMENT OF LABOR
WASHINGTON, D. C. 20210

2. FROM: (REPORTING OFFICE)

3. CONTRACTOR

4. DATE OF REQUEST

5. CONTRACT NUMBER	6. DATE BID OPENED (SEALED BIDDING)	7. DATE OF AWARD	8. DATE CONTRACT WORK STARTED	9. DATE OPTION EXERCISED (IF APPLICABLE) (SCA ONLY)

10. SUBCONTRACTOR (IF ANY)

11. PROJECT AND DESCRIPTION OF WORK (ATTACH ADDITIONAL SHEET IF NEEDED)

12. LOCATION (CITY, COUNTY AND STATE)

13. IN ORDER TO COMPLETE THE WORK PROVIDED FOR UNDER THE ABOVE CONTRACT, IT IS NECESSARY TO ESTABLISH THE FOLLOWING RATE(S) FOR THE INDICATED CLASSIFICATION(S) NOT INCLUDED IN THE DEPARTMENT OF LABOR DETERMINATION

NUMBER: _____ DATED: _____

a. LIST IN ORDER: PROPOSED CLASSIFICATION TITLE(S); JOB DESCRIPTION(S); DUTIES; AND RATIONALE FOR PROPOSED CLASSIFICATIONS (SCA ONLY) (Use reverse or attach additional sheets, if necessary)	b. WAGE RATE(S)	c. FRINGE BENEFITS PAYMENTS

14. SIGNATURE AND TITLE OF SUBCONTRACTOR REPRESENTATIVE (IF ANY)

15. SIGNATURE AND TITLE OF PRIME CONTRACTOR REPRESENTATIVE

16. SIGNATURE OF EMPLOYEE OR REPRESENTATIVE

TITLE

CHECK APPROPRIATE BOX - REFERENCING BLOCK 13.
☐ AGREE ☐ DISAGREE

TO BE COMPLETED BY CONTRACTING OFFICER (CHECK AS APPROPRIATE - SEE FAR 22.1019 (SCA) OR FAR 22.406-3 (DBA)

☐ THE INTERESTED PARTIES AGREE AND THE CONTRACTING OFFICER RECOMMENDS APPROVAL BY THE WAGE AND HOUR DIVISION. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.

☐ THE INTERESTED PARTIES CANNOT AGREE ON THE PROPOSED CLASSIFICATION AND WAGE RATE. A DETERMINATION OF THE QUESTION BY THE WAGE AND HOUR DIVISION IS THEREFORE REQUESTED. AVAILABLE INFORMATION AND RECOMMENDATIONS ARE ATTACHED.

(Send copies 1, 2, and 3 to Department of Labor)

SIGNATURE OF CONTRACTING OFFICER OR REPRESENTATIVE	TITLE AND COMMERCIAL TELEPHONE NO.	DATE SUBMITTED

NSN 7540-01-268-0631

DEPARTMENT OF LABOR

STANDARD FORM 1444 (10-87)
Prescribed by GSA
FAR (48 CFR) 53.222 (f)
1444-101

Exhibit 6-7

FAR 52.222-9

Apprentices are considered learners of a craft or trade, and are recognized as such only when they are

- participating in a bona fide apprenticeship program, registered with the Bureau of Apprenticeship and Training, DOL or with a certified state apprenticeship agency, or
- in the first 90 days of probationary employment in such an apprentice program.

The contractor must submit in advance, or with the first payroll report, evidence of the following:

- Apprentice journeyman ratio.
- Wage rates including full fringe benefits for the apprentice.
- Percent of the journeyman benefits which have been established for the project area.

You must

- Review the written evidence prior to the apprentice appearing on the payrolls.
- If acceptable, immediately notify contractor.
- If unacceptable, advise the contractor that the employee must be paid at the full journeyman wage.

Helper Classification

In one of the few revisions made in the Davis Bacon Act, a new definition was added in January 1991 concerning that of a “helper”. Do not confuse the definition “helper” with that of an “apprentice”*. Although they may appear similar, the “apprentice” is learning a particular trade and must be registered in an approved bona fide apprenticeship training program. The permissible ratio of helpers to journeymen on a project is

up to two helpers for every three journeymen on a project.

FAR 22.401(b)(3)

The description of a helper is contained in Exhibit 6-8.

DEFINITION OF A "HELPER" CLASSIFICATION

A "helper" is a semi-skilled worker (rather than a skilled journeyman mechanic) who works under the direction of and assists a journeyman. Under the journeyman's direction and supervision, the helper performs a variety of duties to assist the journeyman, such as preparing, carrying and furnishing materials, tools, equipment, and supplies, maintaining them in order; cleaning and preparing work areas; lifting, positioning, and holding materials or tools; and other related semi-skilled tasks as directed by the journeyman. A helper may use tools of the trade at and under the direction and supervision of the journeyman. The particular duties performed by a helper may vary according to area practice.

Exhibit 6-8

*Note also that FAR 22.401(b)(2) defines a trainee as a "person registered and receiving on-the-job training in a construction occupation under a program which has been approved in advance by the DOL, Employment and Training Administration ..."

Posting Requirements

As indicated in Exhibit 6-5, you begin checking contractor compliance with Davis-Bacon requirements by determining if the prime contractor and subcontractors are posting

- all applicable wage/benefit determinations,
- any approved additional classifications, and the
- Davis Bacon poster (WH-1321's)

in a prominent and accessible location at the job site at all times. If the contract is in excess of $10,000, the EEO poster must also be displayed.

Reviewing the Payrolls

FAR 22.406-6(a)

The PAYROLLS AND BASIC RECORDS clause requires the contractor and all subcontractors to submit weekly payroll information, as indicated in Exhibit 6-9, to the contracting officer.

MINIMUM PAYROLL INFORMATION FOR EACH EMPLOYEE

FAR 52.222-8

- Employee name.
- Employee address.
- Employee social security number.
- Employee classification(s).
  Hourly rates of wages paid (including fringe benefits)
  Daily and weekly number of hours worked (days, dates of work, regular time and overtime work).
- Gross amount earned.
- Deductions made (by amount and purpose).
- Total deductions.
- Actual (net) wages paid.

Exhibit 6-9

A good procedure to follow is one of reviewing the contractor's first submissions very thoroughly. Any violations brought to light at this stage are ① probably the result of misunderstandings or carelessness, and ② may preclude problems at a later date,

- requiring retroactive recalculations that
- will be a burden on you, as well as the
- contractor and the employee(s) involved.

Exhibit 6-10 lists general requirements for payroll submission.

In order to establish and become familiar with the various classifications and disciplines, it is necessary to study the payrolls carefully. You will soon begin to associate names with disciplines.

GENERAL REQUIREMENTS FOR PAYROLL SUBMISSION

- All payrolls and Statements of Compliance must be submitted weekly by the prime and all subcontractors, either by the execution of Form WH-347 and attaching it to the payroll, or by preparing another attachment which complies with the WH-347 format.
- Payrolls must be submitted within seven calendar days after the regular date of the payroll week covered.
- All laborers, mechanics, and their immediate supervisors will be shown on the payrolls, whereas supervisors, foremen and technical personnel need not appear.
- Contractors and subcontractors who personally perform work at the site need not submit Statements of Compliance and payrolls for their own time. However, they must submit statements that:
  - Clearly indicate their contractual relationship;
  - The type of work performed;
  - The dates on which the work was done;
  - Verification that they received no wages for work performed; and
  - Reflect that no mechanics or laborers were employed in the prosecution of the work.
- The contractor must retain payrolls and Statements of Compliance for three years.

Exhibit 6-10

1. Watch for interchangeability of workers from one classification to another (i.e., use of a journeyman brick layer as a carpenter).
2. In a small firm with an open shop, overlapping classifications might use a skilled man in several tasks that would be considered different trades in the union classification.
3. It is helpful to have the Government inspector periodically review the payroll reports because of familiarity with the contractor employees and the tasks which they would normally perform.

Exhibit 6-11 provides guidance to follow when reviewing payrolls.

Each payroll submission by the prime and each subcontractor must be accompanied by a "Statement of Compliance" attesting to the accuracy of payroll data and the contractor's compliance with labor statutes. (Check your agency procedures for the prescribed format.) The statement is required under the Copeland Act.

Exhibit 6-12 is a copy of the Department of Labor form WH 347, Payroll. Signing the form constitutes a certification which subjects contractors or subcontractors to civil or criminal prosecution for willful falsification of any of the statements made on the form.

REVIEWING THE CONTRACTOR & SUBCONTRACTOR PAYROLLS

Reviewing payrolls consists of examination of all payroll data: The review should consist of, but not necessarily be limited to:

ELEMENT	ACTION	VERIFICATION
Classifications	All classifications on the payrolls must conform to the classifications contained in the contract.	Compare with the contract.
Type of work performed versus classification.	Employees must be classified according to the type of work actually performed.	Compare type of work listed on the payroll for an employee with a progress report for the same period to spot check.
Operators of rented equipment	Operators of rented equipment must be paid not less than the specified rates, even though their services are normally included in the rental rates.	Employee interview.
Number of journeymen employed	①The number of laborers, helpers, and apprentices employed must not be disproportionate to the number of journeymen employed.	The permissible ratio can be obtained by review of the apprenticeship agreement for the local area.
Apprentices: Evidence of Registration	②Evidence of registration of apprentices in approved apprenticeship program.	Must accompany the first payroll on which the apprentice appears.
Paid in Cash	Hourly wage rates and fringe benefits paid in cash must not be less than those prescribed in the contract.	Employee interviews.

Exhibit 6-11

REVIEWING THE CONTRACTOR & SUBCONTRACTOR PAYROLLS
(Continued)

ELEMENT	ACTION	VERIFICATION
Overtime	Work in excess of 40 hours in any calendar week must be paid at the overtime rate of not less than one and one-half times the basic hourly rate. Fringe benefits are excluded in computing overtime rates. Cash in lieu of such benefits is paid at the straight time rate and added after computation of time and one-half of the basic rate.	Employee interviews. Mathematical calculations.
Gross Earnings	Gross Earnings shown on payrolls must total the number of hours worked multiplied by the approved hourly rate of pay, plus fringe benefits if paid in cash.	Verify calculations.
Calculations	Verification that the mathematical calculations are correct.	

NOTE: ① Whenever bona fide apprentices are employed in excess of the allowable ratio, they will be entitled to journeymen rates for each day of disproportionate employment on the project. Allowances should be made for absenteeism.

② Whenever payrolls indicate that a contractor has not complied with apprenticeship requirements, the contractor must pay the apprentice at the journeyman rate applicable to the classification of work performed.

Exhibit 6-11

U.S. DEPARTMENT OF LABOR
WAGE AND HOUR DIVISION

PAYROLL

(For Contractor's Optional Use; See Instructions, Form WH-347 Inst.)

Form Approved
Budget Bureau No. 44-R1093

NAME OF CONTRACTOR ☐ OR SUBCONTRACTOR ☐

ADDRESS

PAYROLL NO.

FOR WEEK ENDING

PROJECT AND LOCATION

PROJECT OR CONTRACT NO.

(1) NAME, ADDRESS, AND SOCIAL SECURITY NUMBER OF EMPLOYEE	(2) NO. OF WITHHOLDING EXEMPTIONS	(3) WORK CLASSIFICATION	OT. OR ST.	(4) DAY AND DATE / HOURS WORKED EACH DAY							(5) TOTAL HOURS	(6) RATE OF PAY	(7) GROSS AMOUNT EARNED	(8) DEDUCTIONS FICA	WITH-HOLDING TAX			OTHER	TOTAL DEDUCTIONS	(9) NET WAGES PAID FOR WEEK
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FORM WH-347 (1/68) - FORMERLY SOL 184 - PURCHASE THIS FORM DIRECTLY FROM THE SUPT. OF DOCUMENTS

Exhibit 6-12

Date _____

I, _____, _____
(Name of signatory party) (Title)

do hereby state:

(1) That I pay or supervise the payment of the persons employed by _____

_____ on the _____
(Contractor or subcontractor) (Building or work)

_____; that during the payroll period commencing on the _____

day of _____, 19____, and ending the ____ day of _____, 19_____, all persons employed on said project have been paid the full weekly wages earned, that no rebates have been or will be made either directly or indirectly to or on behalf of said

_____ from the full
(Contractor or subcontractor)

weekly wages earned by any person and that no deductions have been made either directly or indirectly form the full wages earned by any person, other than permissible deductions ad defined in Regulations, Part 3 (29 CFR Subtitle A), issued by the Secretary of Labor under the Copeland Act, as amended (48 Stat. 948, 63 Stat. 108, 72 Stat. 967; 76 Stat. 357; U.S.C. 276c), and described below:

_____

_____

_____

_____

(2) That any payrolls otherwise under this contract required to be submitted for the above period are correct and complete; that the wage rates for laborers or mechanics contained therein are not less than the applicable wage rates contained in any wage determination incorporated into the contract; that the classifications set forth therein for each laborer or mechanic conform with the work he performed.

(3) That any apprentices employed in the above period are duly registered in a bona fide apprenticeship program registered with a State apprenticeship agency recognized by the Bureau of Apprenticeship and Training, United States Department of Labor, or if no such recognized agency exists in a State, are registered with the Bureau of Apprenticeship and Training, United States Department of Labor.

(4) That:

(a) WHERE FRINGE BENEFITS ARE PAID TO APPROVED PLANS, FUNDS, OR PROGRAMS

--In addition to the basic hourly wage rates paid to each laborer or mechanic listed in above referenced payroll, payments of fringe benefits as listed in the contract have been or will be made to appropriate programs for the benefit of such employees, except as noted in Section 4(c) below.

(b) WHERE FRINGE BENEFITS ARE PAID IN CASH

--Each laborer or mechanic listed in the above referenced payroll has been paid, as indicated on the payroll, an amount not less than the sum of the applicable basic hourly wage rate plus the amount of the required fringe benefits as listed in the contract, except as noted in Section 4(c) below.

(c) EXCEPTIONS

EXCEPTION (Craft)	EXPLANATION

REMARKS

NAME AND TITLE	SIGNATURE

THE WILLFUL FALSIFICATION OF ANY OF THE ABOVE STATEMENTS MAY SUBJECT THE CONTRACTOR OR SUBCONTRACTOR TO CIVIL OR CRIMINAL PROSECUTION. SEE SECTION 1001 OF TITLE 18 AND SECTION 231 TITLE 31 OF THE UNITED STATES CODE.

Exhibit 6-12 (Continued)

The prime contractor must identify all subcontractors by submitting SF 1413 , Statement and Acknowledgment, (See Exhibit 6-13). This form

1. Indicates the type of agreement between the prime and subcontractors, and
2. Incorporates labor standards and laws as well as other required clauses.

FAR 52.222-11

Subcontractors must also submit weekly payrolls. The SUBCONTRACTS (LABOR STANDARDS) clause must be inserted in all construction contracts performed within the U.S. in excess of $2,000

Interviews

In routine compliance checking, an interview reveals

- whether each employee is, (or is not) performing work consistent with her assignment and pay-rate classification, and
- if falsified payroll reports are being submitted.

SF 1445, Labor Standards Interview, (See Exhibit 6-14) is used to conduct interviews.

The frequency of conducting interviews is left up to agency policy, but generally a minimum of one per contract, per week is held. Two or more per week may be required on the larger contracts. However, you should consider interviewing any number of employees as frequently as necessary when

- a violation is suspected, or
- in instances where the payroll reports list a disproportional number of laborers and journeymen.

In some offices, you may conduct interviews if the project is a local one. However, the interview will most likely be conducted by one of the inspectors who will submit a completed SF 1445 to you with an annotation of any possible non-compliance. Upon receipt, you need to compare it to the payroll sheets and daily time sheets.

Look for the laborer's answer to the question on the form which asks "What tools do you use on the job?". Tools actually used by workmen provide good evidence of the skill classification at which the workman is actually performing. Once again, check the answer against the payroll sheets.

For example:

Evidence is revealed during the interview that some individuals classified as "laborers" (and others performing similar work) were actually installing steel rods. This is a task which should fall under an "ironworker's" classification at a much higher wage rate than that being paid under a laborer classification.

STATEMENT AND ACKNOWLEDGMENT

FORM APPROVED OMB NO.
9000-0014

Public reporting burden for this collection of information is estimated to average .15 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. Send comments regarding this burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition and Regulatory Policy, GSA, Washington, D.C. 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0014), Washington, D.C.

PART I - STATEMENT OF PRIME CONTRACTOR

1. PRIME CONTRACT NO.	2. DATE SUBCONTRACT AWARDED	3. SUBCONTRACT NUMBER
4. PRIME CONTRACTOR (Name, address and ZIP code)		5. SUBCONTRACTOR (Name, address and ZIP code)

6. The prime contractor states that under the contract shown in Item 1, a subcontract was awarded on date shown in Item 2 by (Name of Awarding Firm) _____

_____

to the subcontractor identified in Item 5, for the following work:

7. PROJECT	8. LOCATION

9. NAME AND TITLE OF PERSON SIGNING	10. BY (Signature)	11. DATE SIGNED

PART II - ACKNOWLEDGMENT OF SUBCONTRACTOR

12. The subcontractor acknowledges that the following clauses of the contract shown in Item 1 are included in this subcontract:

Contract Work Hours and Safety Standards Act - Overtime Compensation - Construction	Davis-Bacon Act
Payrolls and Basic Records	Apprentices and Trainees
Withholding of Funds	Compliance with Copeland Regulations
Disputes Concerning Labor Standards	Subcontracts
	Contract Termination - Debarment
	Certification of Eligibility

13. NAME(S) OF ANY INTERMEDIATE SUBCONTRACTORS, IF ANY

14. NAME AND TITLE OF PERSON SIGNING	15. BY (Signature)	16. DATE SIGNED

NSN 7540-01-151-4297
Previous edition is usable

EXPIRATION DATE: 3-31-92

1413-102

STANDARD FORM 1413 (REV. 6-89)
Prescribed by GSA - FAR (48 CFR) 53.228(e)

Exhibit 6-13

LABOR STANDARDS INTERVIEW

FORM APPROVED
OMB NO. 9000-0089

CONTRACT NUMBER	EMPLOYEE'S NAME *(Last, First, M.I.)*
NAME OF PRIME CONTRACTOR	EMPLOYEE'S ADDRESS *(Street, City, State, ZIP Code)*
NAME OF EMPLOYER	WORK CLASSIFICATION / WAGE RATE
	SUPERVISOR'S NAME *(Last, First, M.I.)*

	(Check Below) YES	NO
DO YOU WORK OVER 8 HOURS PER DAY?		
DO YOU WORK OVER 40 HOURS PER WEEK?		
ARE YOU PAID AT LEAST TIME AND HALF FOR OVERTIME HOURS?		
ARE YOU RECEIVING ANY CASH PAYMENTS FOR FRINGE REQUIRED BY THE POSTED WAGE DETERMINATION DECISION?		

WHAT DEDUCTIONS OTHER THAN TAXES AND SOCIAL SECURITY ARE MADE FROM YOUR PAY?

HOW MANY HOURS DID YOU WORK ON YOUR LAST WORK DAY BEFORE THIS INTERVIEW?

HOURS	WHAT DATE *(YYMMDD)* WAS THAT?

WHAT TOOLS DO YOU USE?

WHEN DID YOU BEGIN ON THIS PROJECT *(YYMMDD)*?

I HAVE READ THE ABOVE AND CERTIFY IT TO BE CORRECT TO THE BEST OF MY KNOWLEDGE.

EMPLOYEE'S SIGNATURE	DATE *(YYMMDD)*
INTERVIEWER'S SIGNATURE	DATE *(YYMMDD)*

INTERVIEWER'S COMMENTS

WORK EMPLOYEE WAS DOING WHEN INTERVIEWED

IS EMPLOYEE PROPERLY CLASSIFIED AND PAID? *(IF additional space is needed, use comments section)*

☐ YES ☐ NO

ARE WAGE RATES AND POSTERS DISPLAYED?

☐ YES ☐ NO

FOR USE BY PAYROLL CHECKER

IS ABOVE INFORMATION IN AGREEMENT WITH PAYROLL DATA?

☐ YES ☐ NO

COMMENTS

DATE OF CHECK *(YYMMDD)*	NAME OF CHECKER *(Last, First, M.I.)*	JOB TITLE	SIGNATURE

NSN 7540-01-268-0632 1445-101 STANDARD FORM 1445 (10-87)
Prescribed by GSA
FAR (48 CFR) 53.222(g)

Exhibit 6-14

Exhibit 6-15 provides information which may be helpful when conducting the on-site interview.

CONDUCTING AN ON-SITE INTERVIEW

- Complete Standard Form 1445, Labor Standards Interview.
- All oral or written statements must be treated as confidential.
- The SF 1445 must be signed and dated by the interviewer and the employee.
- If the employee refuses to sign, the interviewer will make a note of it on the form.
- No employee's name may be disclosed to the employer in relation to the statements made during the interview, unless consent of the employee is obtained.
- Compare the information obtained with payrolls on file.

Exhibit 6-15

Investigations

Receiving a complaint by a disgruntled worker is a common means of discovering noncompliance. If you receive such a complaint or a serious or persistent violation is uncovered by another party, you must call for a special investigation in accordance with your agency procedures.

The investigation generally will consist of two major activities which are illustrated in Exhibit 6-16.

SPECIAL INVESTIGATION - LABOR LAW VIOLATIONS

1. INTERVIEWS	**PURPOSE**
• Complainant • Employer • Other employees • Foremen	To determine the: - nature of everyone's role, - accuracy of the records, and - nature of violations.
2. EXAMINATION OF CONTRACTOR'S RECORDS	
• Time cards • Books • Ledgers • Sheets • Personnel Records	To determine whether these are in any way inconsistent with the payrolls submitted to your office weekly.

Exhibit 6-16

Violations

In the event of an alleged Davis-Bacon or CWHSSA violation, you must first determine the:

- Validity of the complaint
- Number of employees involved
- Amount of money involved
- If the violation is intentional

The contractor must immediately be put on notice of the suspected violation by a telephone call, followed by written notice.

1. Exercise discretion in your discussions with the contractor.
2. Avoid direct accusations and protect the identity of employees who may have been instrumental in initiating an investigation.
3. Check your agency's procedures as you may need to notify promptly your Labor Relations Specialist.

The employees involved must be notified in writing (registered or certified mail, return receipt requested) by the contracting officer that they should file their claims with the Claims Division of the General Accounting Office.

The claim must provide the following information:

Employee name & address.	Labor Classification.
Name of the prime contractor.	Name of employer.
Identification of the project.	Contract number.
Government activity address.	Dates violations occurred.

If it is determined that there has been a Davis-Bacon or CWHSSA violation, the contractor will have to pay all affected employees the amounts due, including liquidated damages.

Payment Suspension

Therefore, when violations are suspected, you should recommend that the CO withhold or suspend payments to the contractor. Amounts equal to wages found to be due employees may be suspended until

- restitution has been voluntarily made by the contractor or subcontractor, or
- until deductions against payment due the prime contractor have been forwarded to GAO.

The GAO will attempt to make payments to employees.

Exhibit 6-17 summarizes the violation procedures while Exhibit 6-18 illustrates the procedures in the form of a flowchart.

DAVIS BACON/CWHSSA VIOLATION PROCEDURES

Situation A: **The contractor agrees with findings and proceeds to make restitutions:**

Step #1. You will withhold the funds from the next payment due;

Step #2. You may release the withheld funds to the contractor (less the CWHSSA liquidated damages) when the contractor submits proof that the violation was non-willful and provides proof of restitution. (Proof of restitution is usually by means of signed statements of receipt of wages due by the employees involved).

Situation B: **The contractor disputes the amount of underpayment or refuses to make restitution in part or all together:**

Step #1. If restitution is not made by the contractor or subcontractor within a reasonable time after being notified, you must issue a letter outlining the contractor's violations, and the actions that must be taken.

Step #2. Withhold the funds. Usually the Secretary of Labor will be involved when the contractor disputes the findings, and will make a final determination as to the amount to be withheld.

Step #3. If the contractor decides to make restitution based on the Secretary of Labor's finding, you may release the withheld funds to the contractor. (Proof must be submitted that restitution has been made.)

Step #4. If the contractor decides not to make restitution based on the Secretary of Labor's findings, the funds must be transferred to the General Accounting Office.

Step #5. The General Accounting Office will attempt to make disbursements only where wage underpayment determinations have become final, and the contractor has refused to comply or can't comply because he cannot locate the employees involved. (The contractor has 60 days in which to file an appeal.)

Exhibit 6-17

CORRECTIVE ACTIONS FOR VIOLATIONS OF THE DAVIS-BACON ACT OR THE CONTRACT WAGE HOUR LABOR LAWS

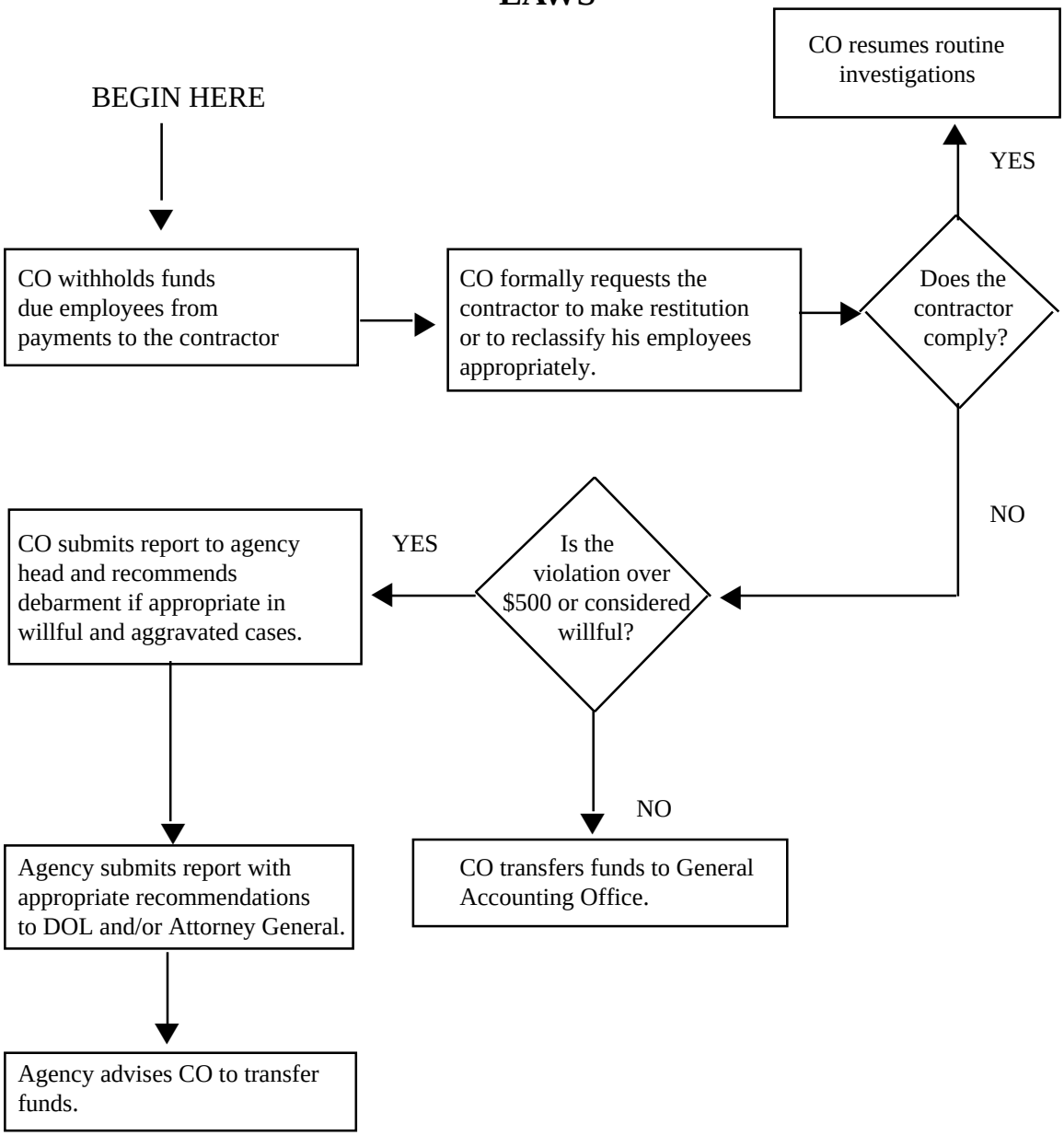

Exhibit 6-18

CWHSSA

When there is a violation of the Contract Work Hours and Safety Standards Act, liquidated damages are computed with respect to each individual laborer or mechanic employed. When you discover actual or suspected violations through compliance checking, or otherwise determine that a contractor is not in compliance with labor statutes, you must

1. Investigate ALL of the contractor's compliance efforts.
2. Prepare a written report of the investigation for the CO's review.
3. Provide the contractor an opportunity to rebut the preliminary findings. (The CO must reconsider all information, including any rebuttal received from the contractor.)
4. Prepare and forward, under the contracting officer's signature, a report of violations including the findings and supporting evidence.
5. Complete SF 1446, Labor Standards Investigation Summary Sheet, (See Exhibit 6-19) and use it as the first page of the report.

The disposition of the report depends upon the

- magnitude of the violation,
- contractor's cooperation in correcting the violation, and
- assurances of future compliance.

The CWHSSA provides that liquidated damages of $10.00 per day, per employee, may be assessed for failure to pay time and one-half for each employee's basic hourly rate over forty hours per week. The liquidated damages withheld must be forwarded to the United States Treasurer.

Labor Relations

FAR 22.101-1(b)

The contract specialist, and anyone associated with administering a construction contract, must remain impartial concerning any labor dispute between a contractor's labor and management. However, you should immediately report to the CO any actual or potential labor disputes or strikes which could affect contract performance. The contractor is also responsible to promptly report actual or potential labor disputes to the CO.

Other Labor Laws

There are various labor laws other than the Davis Bacon Act and CWHSSA which require monitoring to some degree. Exhibit 6-20 offers a brief description of some of the laws, stating their major purpose as well as monitoring and enforcement requirements.

LABOR STANDARDS INVESTIGATION SUMMARY SHEET

FORM APPROVED
OMB NO. 9000-0089

CONTRACT NUMBER

REPORTING OFFICE	CONTRACT AMOUNT	DATE CONTRACT

TYPE OF CONTRACT

FIXED PRICE CPFF OTHER *(Speecify)*

CONTRACTOR'S NAME AND ADDRESS *(Include ZIP Code)*	EMPLOYER'S NAME AND ADDRESS *(Include Zip Code) (If other than prime contractor)*

PROJECT AND LOCATION

DESCRIPTION OF WORK

BASIS FOR INVESTIGATION

WAGE DETERMINATION NUMBER	WAGE DETERMINATION DATE

NATURE AND EXTENT OF VIOLATION

NO. EMPLOYEES INVOLVED	ARE VIOLATIONS CONSIDERED WILLFUL?	COPELAND ACT VIOLATIONS
	YES NO	YES NO
DAVIS-BACON ACT UNDERPAYMENTS	CWHSSA UNDERPAYMENTS	CWHSSA LAW VIOLATIONS
$	$	$

CORRECTIVE ACTIONS TAKEN

RESTITUTION MADE	AMOUNT OF RESTITUTION	CONTRACTORS PAYMENT WITHHELD
YES NO	$	YES NO
WITHHELD FOR DAVIS-BACON VIOLATIONS	WITHHELD FOR CWHSSA UNDERPAYMENTS	WITHHELD FOR CWHSSA VIOLATIONS
$	$	$

REMARKS

PREPARED BY

DATE	TITLE	SIGNATURE

[1]Contract Work Hours and Safety Standards Act

NSN 7540-01-268-0633 1446 -101 STANDARD FORM 1446 (10-87)
Prescribed by GSA
FAR (48CFR) 53.222(h)

Exhibit 6-19

OTHER LABOR LAWS				
LAW	**PURPOSE**	**MONITORING & ENFORCEMENT**	**APPLICABILITY**	**PENALTIES**
Fair Labor Standards Act	Ensures that all employees working on goods for interstate & foreign commerce will have a minimum wage & time and a half for overtime. Establishes child labor standards.	DOL has major responsibility for enforcement. Cooperate with the Wage and Hour Division of the DOL. No active enforcement required other than warning the contractor that the act applies.	The act is universal for all contracts.	* Assessment of double the amount of wages. * $10,000 fine. * Six months imprisonment if convicted more than twice.
Contract Work Hours & Safety Standards	Requires all hours in excess of 40 in one week to be compensated at a rate of payments of not less than one and one-half times the basic rate.	Review payrolls and conduct field interviews. Withold payments to contractor if violations are discovered. CO must inform employees involved of actions.	Applicable to construction contracts over $2,000, and all other contracts over $2,500.	* Suspend payments to contractor of amount equal to wages due, plus $10 per-day-per-employee.
Equal Opportunity	Ensures that there is no discrimination on the basis of race, creed, or national origin in regard to hiring, firing, training or promotion.	Ensures posters are displayed at the job site. Enforcement by Office of Federal Contract Compliance Programs (OFCCP). CO has no direct involvement except to notify the OFCCP regional office of violations.	All Federal contracts $10,000 or more.	* Termination for Default or suspended. * Contractor ineligible for further contracts (Debarment).
Copeland Act	Prevents kickbacks and unlawful payroll deductions. Intended to aid in the enforcement of minimum wage provisions of the Davis-Bacon Act and limits deductions that may be taken from an employee's pay.	Monitor contractor's weekly pay records to conduct major investigations of violations and and prepares reports for submission to the D.O.L. CO has major responsibility for enforcement.	All Federal contracts $2,000 or more.	* Fine up to $5,000 * Imprisonment up to 5 years. * Debarment

Exhibit 6-20

6.2 Progress Payments

Payment is the Government's principal contractual obligation, and disputes occur over whether that obligation has been properly performed. In construction the progress payment is based primarily on percentage of project completion. However, there are other significant elements, which were discussed in Sections 5.1 and 5.2. They are summarized in Exhibit 6-21.

BASIS FOR DETERMINING AMOUNT OF PROGRESS PAYMENTS

PROGRESS SCHEDULE

- Percentage of Completion.
- Satisfactory Progress based on the value of acceptable work from one pay period to the next.

SCHEDULE OF PRICES

- Satisfactory Workmanship.
- Materials Delivered:
  - To the site, and paid for.
  - Stored at other than the construction site.
    Must be specified in the contract.
    Title must pass to the Government at time of payment.

Exhibit 6-21

Invoices

The first thing that starts the clock ticking on providing timely progress payments is receipt of the contractor's invoice in your office. Under procedures that are generally agency specific, processing of invoices is a priority matter. The invoice must be:

- Reviewed for arithmetic errors;
- Consistent with the Government estimate in quantities required;
- Reviewed for any omissions or duplications; and
- Reflect a percentage of completion that agrees with the Government estimate.

You will want to exercise a great deal of care in processing invoices for payment. Upon receipt, stamp the invoice. Line item percentages are critical, and at no time may a payment request be processed which would result in the payment to a contractor for

- work not completed or a variation in quantity,
- materials not stored (or stored elsewhere than the site), or
- materials or workmanship which are unacceptable to the CO.

The burden is on you to assure that the invoice is processed in a timely manner and is correct before passing it on to the contracting officer for authorization of payment.

The burden is on the contractor to establish and certify the amount of the payment request. The basic elements of a proper invoice are described in Exhibit 6-22.

ELEMENTS OF A PROPER INVOICE

- Name and address of contractor.
- Invoice date.
- Contract number.
- Description of the work performed.
- Delivery and payment terms (e.g. prompt payment terms).
- Name and address of remittance office/location..
- Identification of whom to contact about defective invoice.
- Substantiating documentation (i.e. progress report).
- Any agency specific certifications.
- Any other information or documentation required by the contract.

Exhibit 6-22

If the contract* provides for off-site storage, then payments may be made for materials stored at the approved location. As a condition precedent to your authorizing such payments, you must be satisfied that:

- Materials are stored in reasonable proximity to the construction site, so that transportation and attendant hazards are minimized;
- The contractor demonstrates clear title, such as paid invoices;
- Materials must be accounted for in storage, and not in transit;

* VA requires execution of SF30, Supplemental Agreement, with the contractor and certification from the surety that the off-site storage location is agreeable to them.

- The materials for which progress payments are requested are not susceptible to deterioration or physical damage in storage or in transit to the job site.

  Acceptable: steel, machinery, pipe and fittings, electrical cable, etc.,

  Unacceptable: sheetrock, glass, insulation, wall coverings, etc.

When the contractor submits the first invoice, bonding costs are probably included, and you should verify that bond payment has been made. It is a good idea to confirm the bond rates by comparing them to the rates specified on the performance bond form contained in the contract.

Determining Progress

Prior to payment processing, it must be established that satisfactory progress was achieved during the period for which a progress payment is to be made.

☞ Most of the problems arising over progress payments concern disagreement over percentage of project completion.

Preferably agreement is obtained with the contractor on progressive earnings through consultation prior to initiating the invoice.

For payment purposes, the contractor's progress is measured by comparing it to the

• CPM or Bar Chart	for	Timeliness.
• Daily inspection records	for	Quality of workmanship.

In discussions held with the contractor, be sure that there is an understanding on the items of work which can be considered in determining progress. Remind the contractor to:

- Keep the execution plan and schedule updated and furnish it to you on a regular basis;
- Follow the plan and schedule with a minimum of deviation, satisfying critical interior milestones for interface with other activities;
- Assure that all modifications to the contract are included.

Tracking actual work progress, comparing it to the CPM or Bar Chart, depends on a combination of day-to-day physical inspections and periodic discussions with the contractor.

1. You will want to consult frequently with the inspector(s) that are actually doing the day-to-day "leg work" out at the construction site.
2. Consider also the size of the contractor's work force at the job site. This will provide a visual measurement of labor hours and dollars expended from one payment to the next.

Retainage

FAR 32.103

FAR 52.232-5

If satisfactory progress has not been achieved, the contracting officer may, upon your recommendation, withhold up to 10% of the amount of a progress payment until satisfactory progress is demonstrated. This retainage is deducted in accordance with the PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS clause.

The amount to be retained due to deficiencies should be enough to cover all possible liquidated or actual damages or corrective work required. When computing a retainage for reasons listed in Exhibit 6-23, it shall not apply to that portion of progress payments attributable to bond premiums.

CIRCUMSTANCES WHEN RETAINAGE IS APPROPRIATE

- Contractor is lagging behind schedule.
- Deficiencies or controversy exists over the quality of work.
- Controversy exists over amount of time that is considered excusable.
- Contractor failed to submit Progress Schedule.
- Non-submission of operations/maintenance manuals.
- Labor violations.
- Unsafe conditions.
- Poor administration of the contract (Applies to CQC).
- Non-payment of subcontractors.
- Liquidated Damages for late completion.
- Failure to exert "good faith" effort in implementation of the Subcontracting Plan.
- Non-submission of operations/maintenance manuals.

Exhibit 6-23

Prompt Payment Act of 1982

The Act requires Federal agencies to

- Pay bills on time,
- Take discounts only when payments are made within the discount period, and
- Pay interest when payments are made late.

RED ALERT

Remember in the vignette at the start of the chapter the invoices were tucked away in bright red envelops?

A red envelope serves as a red flag to indicate urgency and is an excellent way of getting your attention.

The Act also mandates prompt payment for the contractor:

- The contractor must pay the subcontractors on time or pay interest on late payments.
- Subcontractors must pay bills on time or pay interest on late payments.

Interest that a prime contractor pays a subcontractor for late payment cannot be charged to the Government.

Additional policy concerning prompt payment is contained in Exhibit 6-24.

POLICY ON PROMPT PAYMENT

FAR 32.903

- Invoice payments will be made as close to the due date as possible, but not later than the due date.
- Checks will be mailed on the same day that they are dated.
- Agencies shall pay interest penalty without a request from the contractor.

Exhibit 6-24

FAR 52.232-27

Exhibit 6-25 provides a summary of the PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS clause.

PROMPT PAYMENT FOR CONSTRUCTION CONTRACTS SUMMARY

FAR 32.905(c)

Premise: The Government must pay on time or pay the contractor interest on the late payment.

Payment Due: 14 days after:

- Receipt of payment request by the billing office/**or**
- Date of payment request if billing office does not annotate request with the actual date of receipt.

Retainage:

- Any amounts retained are paid as specified in the contract; **or**
- If not specified, 30 days after approval for release by CO.

Final Payment: 30 days after the latter of:

- Receipt by the billing office of an invoice; **or**
- Government acceptance of the work; or
- Date of the Contractor's invoice if billing office does not annotate invoice with actual receipt date.

Provided:

- Invoice is "proper" and there is no disagreement over quality, quantity or contract compliance.

Interest Penalty: Paid automatically without contractor request if payment is not made by the due date.

Provided:

- Proper invoice received by designated billing office.
- Documentation authorizing payment was processed and no disagreements over quantity, quality, compliance, or amount.
- If final invoice, no further settlement actions are required.

Exceptions to the Interest Penalty:

- Computation of the penalty is dependent on a variety of factors described in the Clause - Treasury Rate for Interest Percentage.
- Additional penalty prescribed for improperly taken discount.
- Disagreements over amount, issues involving compliance, temporary withholding or retainage.
- Claims involving disputes.

Defective Invoices:

- Contractor must be notified within 7 days of receipt.

Exhibit 6-25

6.3 Inspection and Acceptance

Assuring contract performance requires thoughtful, timely, and thorough inspections by persons well acquainted with the specifications and the needs of the requiring agency, followed by a careful appraisal of the results.

Policy

The INSPECTION OF CONSTRUCTION* (See Exhibit 6-26) clause provides answers to questions that you may have regarding the **who, what**, **where**, **when**, and **why** of inspection:

FAR 46.102

1. Contractor must have an adequate inspection system and perform such inspections to ensure that the work performed conforms to the contract.
2. Contractor is required to maintain records of these inspections and make them available to you during performance.
3. Work is subject to inspection by the Government at all places and at all reasonable times before acceptance.
4. Contractor must, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest, the Government consents to accept the work with an appropriate adjustment in contract price.

INSPECTION OF CONSTRUCTION CLAUSE

FAR 52.246-12

DEFINITION OF WORK	PURPOSE	REMEDIES
Includes-but is not limited to-materials, workmanship, and manfacture and fabrication of components.	• Requires the contractor to inspect work performed under contract. • To maintain records of inspection of work. • Subject to inspection of work by the Government.	• The Government has the express right to reject material or workmanship. (See Material and Workmanship clause - Section 5.3)

Exhibit 6-26

Government inspections and tests are for the sole benefit of the Government and **DO NOT**:

- Relieve the contractor of responsibility for providing adequate quality control measures;

* See Exhibit 8-18 for full text of clause

- Relieve the contractor of responsibility for damage to or loss of material before acceptance;
- Constitute or imply acceptance; or
- Affect the continuing rights of the Government after acceptance of the completed work in the event of latent defects, fraud, gross mistakes amounting to fraud or rights under warranty or guarantee.

Inspection is a vital link between performance by the contractor and acceptance by the Government. Depending upon the resources and the policies of your agency, inspection may be performed by:

- Government personnel.
- Contractor personnel under separate contract.
- The A/E under professional services negotiated as an option under a design contract.
- Personnel of another agency under an interagency agreement.
- Any combination of the above.

Inspection is one of the items covered in contract administration planning and in the preconstruction conference. (See Chapter 4) The goal of this planning for inspection is to assure that there is quality management of all work performed under the contract.

Exhibit 6-27 defines some of the key terms related to quality management in construction that all personnel should fully understand.

UNDERSTANDING CONSTRUCTION QUALITY MANAGEMENT

Quality: Conformance to properly developed requirements, especially specifications and drawings.

Quality Management: All control and assurance activities instituted by both the contractor and the Government to achieve the product quality which is established by the contract requirements.

Contractor Quality Control: The construction contractor's system to manage, control and document their own, supplier's, and subcontractor's activities in order to comply with contract requirements.

Quality Assurance: Procedures by which the Government fulfills its responsibility in order to be certain that the CQC is functioning and the specified end product is realized.

Exhibit 6-27

The contracting officer, the contract specialist/administrator, and the inspector(s) must ① establish a coordinated approach and ② be cognizant of each others' authority and responsibility. You, as the administrator of the contract, are often in the middle of these fast moving events and must ensure, through continuing communication, that proper authority has been obtained or exercised and that all members of the inspection team are acting within their areas of responsibility and authority. Inspectors perform on behalf of the contracting officer and their typical duties are listed in Exhibit 6-28.

NOTE: Inspectors are often known by different titles, e.g. COR or COTR - contracting officer's (technical) representative. Be sure you fully understand the terminology used in your agency and the attendant duties and responsibilities.

TYPICAL DUTIES OF AN INSPECTOR

- Updates drawings and specifications.
- Becomes familiar with the CQC/contract inspection requirements.
- Reviews and offers comments on Schedule of Prices or Network Analysis.
- Assists contractor in meeting security requirements, such as gate passes, etc.
- Checks submittals for proper approval stamps.
- Acts as the contractor's normal contact with the field contract office.
- Assists contractor in arranging for Government utilities hookup.
- Coordinates construction work between other contractors in the same area.
- Makes arrangements for inspection.
- Inspects all critical items.
- Performs sufficient site visits for oversight and inspection, preferably daily.
- Checks certifications on materials delivered.
- Checks workmanship (spot checks).
- Observes testing procedures.
- Reviews submittal log, deficiency list.
- Obtains daily reports from the contractor.
- Prepares reports in accordance with procedures.
- Prepares contract non-compliance reports for signature.
- Makes recommendations on contractor payment requests.
- Witnesses final tests, assists in all pre-final and final inspections.
- Performs Labor Standards Interviews.
- Assures safety enforcement.
- Keeps contracting officer informed through the contract administrator, or the chain of command.
- Verifies that the job site is posted with required labor rates, and all other labor posting requirements.

Exhibit 6-28

Level of Inspection

By examining the inspection clauses and the technical specification, you can determine the level of contractor inspection appropriate for each contract:

- No formal system (contracts under $25,000).
- Basic Inspection of Construction clause (See Exhibit 8-18).
- Detailed Contractor Quality Control (CQC) plan.

The threshold for the detailed CQC plan varies among agencies* but is usually expressed as a dollar amount such as $1 or $2 million. The level of inspection may have a profound impact on distribution of your workload as a contract administrator, as well as the inspection staff.

If there is a special clause (generally agency specific) in the contract which calls for a detailed CQC plan, the following criteria may apply:

- Contractor must provide staff, sufficient in size and qualifications, to ensure contract compliance.

- Contractor will hire a CQC manager who will work directly with the prime contractor, and must report directly to the project manager or someone higher in the contractor organization.

- As the position of CQC manager is viewed as key to successful contract quality management, he or she may have to meet stringent requirements, such as being a graduate engineer or architect, with a specific minimum years' experience on similar type construction work, and/or a minimum number of years in construction, serving in a supervisory position.

- Contractors must prepare and submit to the satisfaction of the contracting officer, a CQC plan which must be approved prior to the start of work. If an interim plan is approved so as to initiate work, you must establish a date for the final plan to be submitted and approved.

Exhibit 6-29 describes a typical example of a CQC plan.

Types of Inspection

Listed below are the various types of inspections followed by a discussion of each:

- Off-site
- Interim
- Occupancy
- Joint
- Pre-final

* VA, for example, doesn't require a separate CQC person/plan, but relies instead on a combination of Gov't, A/E, and contractor project staff inspectors.

TYPICAL QUALITY CONTROL PLAN CONTENTS

(1) A description of the quality control organization, including a chart showing lines of authority.

(2) Name, qualifications, duties, responsibilities and authorities of each person assigned a QC function.

(3) A copy of the authority delegation to the CQC manager, or a complete description thereof.

(4) Procedures for scheduling and managing submittals, including those of subcontractors, off-site fabricators, suppliers and purchasing agents.

(5) Control testing procedures for each specific test required.

(6) Proposed laboratory for testing requirements.

(7) List of definable features of work. A definable feature of work is a task which is separate and distinct from other tasks and has separate control requirements.

(NOTE: Content of the CQC plan is agency specific. Your agency procedures may require more or less information to be included in the plan).

Exhibit 6-29

In some instances the contracting officer may decide that an off-site inspection is necessary, e.g. if equipment is to be furnished in conjunction with the construction portion of the contract. Consideration would include:

- Type of material or equipment involved.
- Cost of inspection.
- Importance of checking the materials and other requirements of the specification.
- Assurance that off-site material is for the instant contract.

For items that will become concealed and inaccessible for inspection (i.e., concrete or rebar), the Government has the right to make an interim inspection during placement. This insures both parties that the contract requirements appear to have been met. Visual inspection of concrete placement, for example, is supplemented by sampling and laboratory

testing. A contractor cannot legally lean on Government inspection as a basis for their quality control.

FAR 52.236-11

Under the USE AND POSSESSION PRIOR TO COMPLETION clause, which allows the Government the right to occupy a building prior to final acceptance, an occupancy inspection must be performed in order to establish the work to be done prior to final acceptance of the building.

> During this occupancy period prior to acceptance, particular care must be exercised not to alter, repair or change in any way, the facility, or any equipment therein. To do so may alter the contractor and Government's rights under the contract clauses for inspection and warranty.

Beneficial occupancy is similar to possession prior to completion, except that

1. The Government plans to occupy portions of the facility prior to completion, i.e. there are phased completion dates, and
2. There is included in the contract a specific clause (normally located under the special provisions portion of the contract, in the paragraph entitled “Completion of Work”) allowing the Government to do so.

If the contract contains detailed CQC provisions, the CQC representative confirms completion by performing an inspection to demonstrate that the building is ready for occupancy. If you, as the contract administrator, concur, a joint inspection can be made. It is important that all deficiencies are noted and documented. You will require the contractor to correct them as soon as possible.

If the contract contains the standard inspection requirements rather than CQC, the inspection is usually done jointly, mutually arriving at a "punch list" of deficiencies.

A pre-final inspection is a formal walk-through to which all interested parties are invited. It takes place after previously identified deficiencies:

- have been identified,
- corrective work scheduled and completed, and
- work has been reinspected.

This procedure may take place several times before the on-site inspector is satisfied, and you are ready to schedule a formal pre-final inspection. If no deficiencies are brought to light during this inspection, no final inspection is required.

TYPICAL INSPECTION GROUP

Contracting officer.
Government technical inspection personnel.
Contractor personnel (e.g., technical inspectors).
Using agency representatives.
Local agency representatives, such as fire safety, security, etc.
Operations and maintenance personnel.
Subcontractor personnel.
Equipment manufacturers' representatives.
A/E, or project designer.

Exhibit 6-30

It is your responsibility to:

- establish inspection dates,
- arrange typical inspection group (See Exhibit 6-30), and
- make all of the necessary preparations.

Acceptance

Acceptance is the desired outcome of any contract. The procedure is important because title passes from the contractor to the Government upon acceptance.

There are two types of acceptance which are described in Exhibit 6-31.

TWO TYPES OF ACCEPTANCE

Formal Acceptance
Formal acceptance normally takes place when the contracting officer executes an acceptance document. However, remember that the actual date of acceptance does not take place until the document is received by the contractor.

Implied Acceptance
Occurs when an unreasonable delay is the result of the Government's notice of rejection. The inspection clause provides that acceptance will be made as promptly as practicable after completion and inspection. Failure to promptly notify the contractor of a rejection may be held to constitute acceptance as a matter of law. Implied acceptance can also occur when the Government uses or alters something inconsistent with the contractor's ownership. This could occur during beneficial occupancy, when the Government takes possession prior to completion, or at any time prior to acceptance.

Exhibit 6-31

Acceptance by the Government is the responsibility of the contracting officer. Under fixed-price contracts it is final, except for

- latent defects,
- fraud, or
- gross mistakes amounting to fraud.

Once the contractor has corrected all deficiencies and final inspection is made, then acceptance occurs and the Government takes possession.

FAR 52.232-10(c)

[Final acceptance may also trigger payment of an unpaid balance of money due the A/E under the A/E services contract.]

Warranties

Warranties (and guarantees*) are merely an extension of the contractor's liability. They may be of several kinds, emanating from various parties, and covering numerous types of defects and damages. A warranty or guarantee may be expressed:

- in the contract or attachment thereto;
- in a separate document issued by a manufacturer, installer, or the contractor as part of normal commercial practice; or
- implied by common law.

FAR 52.246-21

The standard WARRANTY OF CONSTRUCTION clause (See Chapter 9.2.2) requires the contractor to warrant that

- all work performed conforms to the contract,
- is free from any defective materials, equipment, or workmanship performed by the contractor or any subcontractor
- for a period of one year.

Special warranties and guarantees generally increase the scope and/or duration of the contractor's liability.

As the contract administrator, you initiate a defective claim under a warranty clause by

- providing the contractor written notice within the period of the guarantee, while
- ensuring that warranted construction is protected from intervening actions which would invalidate the warranty and make the contractor's responsibility difficult to prove.

Upon receipt of the written notice, the contractor is then obligated to promptly remedy the problem at no expense to the Government. In addition to replacing the defective work, the Government may have the work done by its own forces or others, at the contractor's expense.

*For purposes of this text, the terms "warranties and guarantees" can be used interchangeably. Strictly speaking, 'warranty' suggests an affirmation of existing conditions; whereas, 'guarantee' indicates some type of assurance from a third party.

6.4 Contract Closeout

FAR 4.804-4(a)

A contract is considered to be "physically" complete when the

1. Contractor has finished the required work and
2. Government has inspected and accepted the work, or
3. Government has terminated the entire contract.

Contract closeout is the “wrap-up” of a completed contract. It involves:

- Review of the contract file.
- Completion of all actions.
- Transfer of ownership.
- Disposal of the contract file.

Closeout is documented through the preparation of a contract completion statement which is prepared by the contracting officer administering the contract and included in the contract file. Exhibit 6-32 describes the information contained in a completion statement.

CONSTRUCTION COMPLETION STATEMENT

FAR 4.804-5(b)

- Contract administration office name and address (if different than the contracting office.)
- Contracting office name and address.
- Contract number.
- Last modification number.
- Last change order number.
- Contractor's name and address.
- Dollar amount of excess funds, if any.
- Voucher number and date, if final payment has been made.
- Invoice number and date, if the final approved invoice has been forwarded to a disbursing office of another agency or activity, and the status of the payment is unknown.
- A statement that all required contract administration actions have been fully and satisfactorily accomplished.
- Name and signature of the Contracting Officer; and
- Date.

Exhibit 6-32

FAR 4.804-l

Contract closeout often receives low priority. It should, however, be considered a routine contract administration function and not postponed indefinitely. Under no circumstances will you closeout a file that is in litigation or under appeal, or where termination has taken place and all termination actions have not been completed.

The general rule for fixed price construction and A/E contract closeouts is that all actions should be accomplished within six months from the date of physical completion. However, your agency may have a policy that actions should be accomplished sooner than six months.

Review of the Contract File

FAR 4.803(b)

Your initial task in closing out contract files is to make a thorough review of the administrative part of the contract file, as follows:

- In all likelihood your agency's FAR Supplement sets forth the contract file documentation requirements for construction. Compare this against the actual contents of your (administrative) contract file. If there are any missing documents, obtain them from the appropriate sources.

- Utilizing a contract closeout checklist (agency specific), fill in all of the identifying information and compare it against all of your contract documents including all correspondence, vouchers, change orders, etc. **See Exhibit 6-33** for a sample checklist.

Completion of All Actions

Next, you need to identifying all of the missing actions briefly described in **Exhibit 6-34** and take the necessary steps to see that they are accomplished. Once again your agency may have revised or augmented this list with regard to construction contracts.

Transfer of Ownership

Next, you need to finalize the transfer of construction ownership to the user (if applicable). Only facilities which have been completed according to contractual requirements, or substantially completed (minor deficiencies) should be transferred. To do so, you will need to accomplish some, if not all, of the actions shown in **Exhibit 6-35.**

Disposal of the Contract File

Finally, you will dispose of the contract file(s) in accordance with your agency's established procedures. However, the documents specified in **Exhibit 6-36** shall be retained as indicated.

OFFICIAL CONTRACT RECORD INDEX	CONTRACT NUMBER
Construction Contracts	

POST-AWARD RECORDS CHECKLIST

TAB NO. OR N/A	ITEM	FILE NO.		TAB NO. OR N/A	ITEM	FILE NO.
	Pre-Construction Meeting Minutes.				Termination Actions with supporting documentation.	
	Schedule of Prices.				Claims Log/Claims Documentation.	
	Progress Schedule Documentation.				Requests for Equitable Adjustments.	
	Safety Plan.				Turn-over to Using Agency.	
	Approvals or Disapproval of Waivers of Deviations from contract.				Construction Contractor Performance Evaluation Reports.	
	Submittals.				A/E Performance Evaluation Report at Completion of Construction.	
	Progress Photos.				Contractor's Final Release.	
	Quality Assurance/Quality Control Records.				Assessment of Liquidated Damages Record.	
	Inspection Records.				Miscellaneous Correspondence Pertaining to Contract Administration.	
	Contractor Payroll Records.				Contract Closeout Statement/ Closeout Documentation.	
	Labor Relations Records/Labor Standard Interviews.				Cross reference to pertinent documents filed elsewhere.	
	Invoice/Payment Log.				Chronological list of awarding and successor contracting officers with inclusive dates of responsibility.	
	Invoice/Payment Vouchers/ all supporting documentation, correspondence.					
	Test Results.					
	Modifications Log.					
	Contract Modifications. all supporting documentation, correspondence.					
	Field Changes.					
	Documentation for A/E Liability Issues.					
	Property Administration Records.					

Exhibit 6-33

ACTIONS PRIOR TO CLOSEOUT

FAR 4.804-5(a)

- Obtain final invoice.
- Verify that the contractor has completed the required work and that the Government has inspected and accepted all work, including all tests and any warranty requirements.
- Verify clearance of any final patents and royalty reports (if any).
- Value Engineering Change Proposals are complete.
- Subcontracts are settled by the prime contractor.
- All interim or disallowed costs have been settled.
- Contract audit requirements were met.
- All submittals (i.e. final shop drawings, warranties) were received.
- Unused Government property has been returned.
- Contractor's closing statement and/or Release of Claims is on file.
- Demobilization and cleanup (per Cleaning Up clause, FAR 52.236-12) has been completed.
- Final payment or collection from the contractor for any overpayments has been accomplished; and
- Excess funds have been identified and deobligated.
- Contract Completion Statement has been executed.
- Performance Evaluations have been completed for both the construction contractor and the A/E.

Exhibit 6-34

TRANSFER OF CONSTRUCTION ACTIONS

- Prepare a Transfer and Acceptance form. (Agency specific) if ownership is to be transferred.
- Execute a Lease Agreement if “ownership “ is to be in the form of a prearranged lease.
- Prepare a real property list of all installed equipment and/or equipment in place.
- Obtain all of the operating and maintenance manuals, as well as wiring diagrams, piping layouts, valve charts, valve tags, color codes for wiring and piping, and parts catalog.
- If data were called for, verify that data were received; transfer to the new owner as required.
- If training was a data contract line item requirement (i.e., that which may be required on complex projects, steam plants, data processing facilities, mechanization or material handling systems, etc.) make all of the necessary arrangements and assure that the requirements have been fulfilled prior to closeout.
- Obtain a list of equipment covered by warranty, along with a copy of the warranties. The list will be provided to the new “owner”.
- Obtain and provide to the owner a copy of all test results for mechanical and electrical systems.
- Obtain and provide all keys (tagged), handles and tools.

Exhibit 6-35

DISPOSAL OF THE CONTRACT FILE

FAR 4.805

DOCUMENT	RETENTION PERIOD
(a) Records pertaining to exceptions or protests, claims for, or against the United States, investigations, cases pending or in litigation, or similar matters.	Until final clearance or settlement, or until the retention period otherwise specified for the document in paragraphs (b) through (o) below is completed, whichever is later.
(b) Signed originals of construction contracts over $2K and all other contracts over $25K.	6 years and 3 months after final payment.
(c) Reserved.	
(d) Signed originals of justifications and approvals (JAs) and determinations and findings (D&Fs) required by Part 6, and copies of supporting documents and data.	6 years and 3 months after final payment.
(e) Signed originals of construction contracts of $2K or less and all other contracts of $25K or less.	3 years after final payment.
(f) All unsuccessful offers or quotations that pertain to contracts below the appropriate small purchase limitation.	Retain 1 year after date of award or until final payment, whichever is later; but if the contracting officer determines that the files have future value to the Government, retain as long as advisable.
(g) Contract status, (i.e., CPM, Bar Charts, etc.)	6 months after final payment.
(h) Rejected Engineering Change Proposals.	6 months after final payment.
(i) All labor compliance records, including Davis Bacon payrolls and interviews, Equal Employment Opportunity complaints.	3 years after final payment.
(j) Documents pertaining generally to the contractor, such as on past performance.	Until superseded or obsolete.

Exhibit 6-36

DISPOSAL OF THE CONTRACT FILE (CONT.)

FAR 4.805

DOCUMENT	RETENTION PERIOD
(k) Records or documents other than those above pertaining to contracts below the appropriate small purchase limitation.	1 year after final payment.
(l) Records or documents other than those above pertaining to contracts exceeding the appropriate small purchase limitation.	6 years and 3 months after payment.
(m) Files on cancelled solicitations.	5 years after cancellation.
(n) Solicited and unsolicited unsuccessful offers and quotations above the appropriate small purchase limitation.	
(1) When filed separately from contract case files.	Until contract completion date.
(2) When filed with contract case files.	6 years and 3 months after final payment.
(o) Contractor Performance Evaluation	6 years from date of report.

Exhibit 6-36 (continued)

Construction Contractor Evaluation

FAR 36.201

Contracting officers shall evaluate the performance of a construction contractor for each construction contract of:

- $500,000 or more; or
- More than $10,000, if the contract was terminated for default.

In addition, your agency may impose evaluation requirements, such as:

- $10,000 or more, if any element of performance was either unsatisfactory or outstanding; or
- $100,000 or more, if the contract was terminated for convenience of the Government.

Since performance evaluations are considered a "report card" of the contractor's performance, it is only fair that the contractor knows in advance the elements on which performance may be judged. For this reason it should be included in the agenda at the Preconstruction Conference. (See Exhibit 4-12.)

FAR 36.701(e)

Exhibit 6-35 is a copy of **SF 1420, Performance Evaluation - Construction Contracts**, used in evaluating contractor performance. Interim reports may be made throughout the contract performance period; supporting documentation is gathered in the contract file.

The contractor must be notified in writing if the evaluating official concludes that the performance was unsatisfactory in any element.

- The notification must contain sufficient details so that the contractor can fully understand the circumstances that caused the rating.
- You should give the contractor a reasonable time to submit any written comments, which will become a part of the report.
- If factual discrepancies are brought to light at this time, you must see to it that they are resolved and the report changed, if appropriate.

Performance Reports should be treated in accordance with the Privacy Act , and not released outside the Government.

1. The actual evaluation is accomplished by an official who has firsthand knowledge of the events described in the report.
2. For the sake of "checks and balances," the report should be reviewed by an individual above the level of the evaluator.
3. Once the report is issued, the contractor has been afforded an opportunity for rebuttal, and the reviewing official has completed any changes to the report as a result of the contractor's comments, the evaluation is placed in the file.

Distribution of the performance report is determined by your agency. They should be handled in a "For Official Use Only" manner, and retained for at least a six year period following the date of the report.

A/E Performance Evaluation

The A/E's performance is also evaluated using **SF 1421, Performance Evaluation (Architect-Engineer)**, for contracts over $25,000.

FAR 36.604

You may not be the one to make these evaluations, but you are responsible for making sure they are accomplished.

FOR OFFICIAL USE ONLY
(WHEN COMPLETED)

PERFORMANCE EVALUATION - CONSTRUCTION CONTRACTS

1. CONTRACT NUMBER

PART I - GENERAL CONTRACT DATA

2. CONTRACTOR *(Name, address and ZIP code)*

3. TYPE OF CONTRACT *(Check)*
- A. ADVERTISED
- B. NEGOTIATED
  - ☐ CPFF
  - ☐ FIRM FIXED PRICE
  - ☐ OTHER *(Specify)*

4. COMPLEXITY OF WORK
- ☐ DIFFICULT
- ☐ ROUTINE

5. DESCRIPTION AND LOCAITON OF WORK

6. FISCAL DATA	A. AMOUNT OF BASIC CONTRACT $	B. TOTAL AMOUNT OF MODIFICATION $	C. LIQUIDATED DAMAGES ASSESSED $	D. NET AMOUNT PAID CONTRACTOR $
7. SIGNIFICANT DATES	A. DATE OF AWARD	B. ORIGINAL CONTRACT COMPLETION DATE	C. REVISED CONTRACT COMPLETION DATE	D. DATE WORK ACCEPTED

8. TYPE AND EXTENT OF SUBCONTRACTING

PART II - PERFORMANCE EVALUUATION OF CONTRACT *(Check appropriate box)*

9. PERFORMANCE ELEMENTS	OUTSTANDING	SATISFACTORY	UNSATISFACTORY
A. QUALITY OF WORK			
B. TIMELY PERFORMANCE			
C. EFFECTIVENESS OF MANAGEMENT			
D. COMPLIANCE WITH LABOR STANDARDS			
E. COMPLIANCE WITH SAFETY STANDARDS			

10. OVERALL EVALUATION

☐ OUTSTANDING *(Explain in Item 13, on reverse)* ☐ SATISFACTORY ☐ UNSATISFACTORY *(Explain in Item 14, on reverse)*

11. EVALUATED BY

A. ORGANIZATION *(Type or print)*

B. NAME AND TITLE *(Tyep or print)*	C. SIGNATURE	D. DATE

12. EVALUATION REVIEWED BY

A. ORGANIZATION *(Type or print)*

B. NAME AND TITLE *(Tyep or print)*	C. SIGNATURE	D. DATE

NSN 7540-01-150-0326

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(WHEN COMPLETED)

STANDARD FORM 1420 (10-83)
Prescribed by GSA
Facsimile

Exhibit 6-37

FOR OFFICIAL USE ONLY
(WHEN COMPLETED)

13. REMARKS ON OUTSTANDING PERFORMANCE - AS INDICATED BY THE CONTRACTOR'S PERFORMANCE ON THIS CONTRACT. IF YOU CONSIDER THE CONTRACTOR TO BE OUTSTANDING, SET FORTH FACTUAL DATA SUPPORTING THIS OBSERVATION. THESE DATA MUST BE IN SUFFICIENT DETAIL TO ASSIST CONTRACTING OFFICERS IN SELECTING CONTRACTORS THAT HAVE DEMONSTRATED OUTSTANDING QUALITY OF WORK AND RELIABILITY. *(Continue on separate sheet, if needed.)*

14. EXPLANATION OF UNSATISFACTORY EVALUATION - FOR EACH UNSATISFACTORY ELEMENT, PROVIDE FACTS CONCERNING SPECIFIC EVENTS OR ACTIONS TO JUSTIFY THE EVALUATION *(e.g., extent of Government inspection required, rework required, subcontracting, cooperation of contractor, quality of workmen and adequacy of equipment).* THESE DATA MUST BE IN SUFFICIENT DETAIL TO ASSIST CONTRACTING OFFICERS IN DETERMINING THE CONTRACTOR'S RESPONSIBILITY. *(Continue on separate sheet, if needed.)*

FOR OFFICIAL USE ONLY
(WHEN COMPLETED)

STANDARD FORM 1420 BACK (10-83)

Exhibit 6-37 (Continued)

ANSWERS - ANSWERS - ANSWERS

In the vignette at the beginning of the chapter, the thoughts expressed were of concern as to how to go about managing a construction contract. You will probably agree that the tasks are many, they are varied, and most all of them carry a high degree of priority. Keep in mind that you are most likely administering several contracts at the same time, all in various stages of completion. It has been likened to performing a juggling act, and you are the juggler. However, since you learned your lessons well in Chapter 4 in planning and laying the groundwork , you are better prepared for managing the day to day administration when the time comes to do so.

There was some concern as to priorities of the paperwork that filled the "in" basket. There are no written procedures. However, there are some duties which should have been accomplished prior to the beginning of the work.

Submittals

What were the samples of construction materials doing in the basket? We now know that these are submittals that are required under the "Materials and Equipment" clause which require approval/disapproval by the CO. These must be processed in a timely manner in order to preclude the Government from being blamed for delay of the project, as the contractor cannot proceed to incorporate the material into the work without the necessary approvals.

Insurance papers were also found in the "in" basket. The contractor is required to produce them prior to commencement of work on government property . They must be monitored throughout the contract in assuring that the Government is fully protected at all times during performance. It is also a requirement of subcontractors.

Schedule of Progress

There was reference to a lengthy chart in the basket. This was the contractor's progress schedule. (An important document to be reviewed and approved by the contracting officer for purposes of measuring progress throughout the contract.) You have probably correctly determined from the description that it was a CPM type schedule.

Invoices

There was a concern whether bonding and costs associated with mobilization are allowable items on an invoice. As to bonding, we learned in the chapter that bonding costs are allowable, provided the amount is correct, and evidence is produced showing that the bonding company has been paid. Mobilization costs are allowed only when authorized by the contracting officer.

CHAPTER 7

DELAYS

IS THE CONTRACTOR REQUESTING TOO MUCH?

The inspector was hot, sticky, and covered with mud. After three hours out on the construction site, he still wasn't able to get the project moving, and from the dark clouds outside, it looked like more rain was on the way. It has already rained four inches above normal for the month of March. There were other problems to contend with. That's why John had asked him to stop by the office.

He understood John to say that the contractor has requested an immediate 60 days extension, asserting that unless the extension is granted within two days, additional crews will be hired and a claim submitted for accelerated performance. The contractor wants an additional 20 days time extension for inclement weather in March and 30 days' time PLUS extended overhead costs for Government delays. His thoughts were interrupted as he arrived at John's office. "Hi Pete. Come on in," John exclaimed. "Pull up a chair. I'm just going over the contractor's letter. I told you on the phone about the problem. He wants extended overhead costs for delays. I'll read you what he says are the reasons:

- *wants 20 days for granting partial site access,*
- *10 days for submittal review delays, as well as*
- *extended overhead for the unusual weather.*

"What about documentation?" Pete inquired.

"He gave us some documentation, but it is lacking entirely in details. In the first place, during the time that he claims partial access, his only piece of earth moving equipment on the job site was down due to poor maintenance. As you know, earth moving was a critical activity on the progress chart. I think that it was about 15 days, but I'm not sure. Do you remember?"

"I'm afraid not," replied Pete. "I just didn't think it was important at the time. Besides, I was busy providing oversight on the CTC project. By the way, the CQC superintendent is doing a heck of a job over there. At least we have one contract that is going well."

"About the submittal approval delay. You didn't have anything to do with that Pete, but I checked with the A/E who reviews our submittals, and he has told us that 10 days is a very reasonable time to review a boiler equipment submittal," John explained. "So, I think the contractor is blowing smoke. What do you think?" "I agree," answered Pete.

Do you agree with John and Pete?

COURSE LEARNING OBJECTIVES

At the completion of this chapter you will be able to:

Overall: Recognize the causes of delays and quantify their impact on the project's schedule and cost. Advise the Contracting Officer on the correct course of action.

Individual:

7.1 Perform an analysis of delays.
- Determine the cause of the delay.
- Determine whether the delay is excusable or inexcusable.
- Determine whether acceleration has occurred.

7.2 Effect of delays on time.
- Identify the various techniques of time analysis.
- Identify non-allowable adjustments (i.e., a delay which is not on the critical path).

7.3 Effect of delays on cost.
- Determine if the contractor is entitled to additional costs (including impact).
- Explain the concept of unabsorbed overhead.
- Describe several methods for calculating unabsorbed overhead.
- Calculate the amount of unabsorbed overhead to which the contractor is entitled.
- Determine the types of costs to be included in any adjustment resulting from a delay.

7.4 Process delay claim.
- Obtain the contractor's proposal.
- Obtain an independent Government estimate of adjustment.
- Hold discussions with the contractor.
- Prepare a memorandum of recommendation to the Contracting Officer and the contract file based on:
  - Factual Information.
  - Nature of the delay.
  - Reasons for believing the delay is, or is not excusable.
  - Contractor's recoverable damages, if any.
  - Revised completion schedule.
- Document the contract administration file.

INTRODUCTION TO DELAYS

Risk Allocation

Delays are really all about risk allocation. There are several clauses which address the consequences of events which delay performance:

- Changes
- Suspension of Work
- Differing Site Conditions
- Default

Under these clauses the time and cost of delays are dealt with separately. Delays are inevitable in the construction environment. Because the construction contractor's overhead increases and profits diminish on a fixed price construction contract when experiencing a delay, it becomes one of the major issues encountered in the administration of a construction contract.

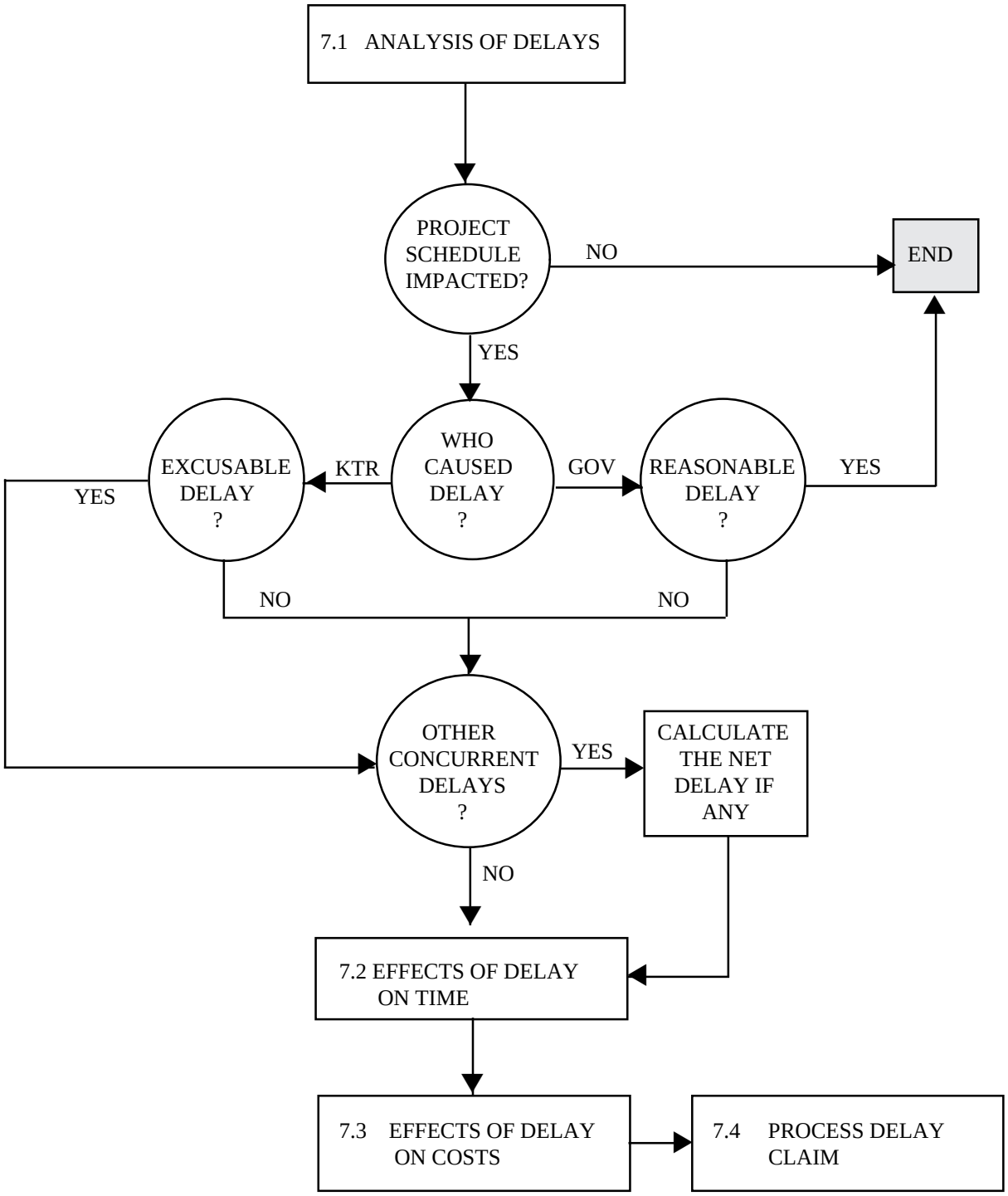
Some types of events protect the contractor in both time and money losses; others protect the Government. When delays are concurrent (or when no one is responsible for a delay), the contractor is excused in time only by a specific clause provision.

Difficulty sometimes arises in determining the precise time that a delay begins, as well as the duration and the impact it has on the contractor. Determining which party should bear the risk, and to what extent in time and money, is the responsibility of the contracting officer.

Steps in Performance

The steps in processing delays are charted on the next page. Following the flowchart, each step is discussed in turn.

DELAYS


7.1 ANALYSIS OF DELAYS
PROJECT SCHEDULE IMPACTED?
NO
END
YES
EXCUSABLE DELAY ?
KTR
WHO CAUSED DELAY ?
GOV
REASONABLE DELAY ?
YES
YES
NO
NO
OTHER CONCURRENT DELAYS ?
YES
CALCULATE THE NET DELAY IF ANY
NO
7.2 EFFECTS OF DELAY ON TIME
7.3 EFFECTS OF DELAY ON COSTS
7.4 PROCESS DELAY CLAIM

STEPS IN PROCESSING DELAYS

7.1 Analyze Delays

It is the contractor's responsibility, quite simply, to build

- What the Government wants to be built and
- When the Government wants it completed.

The completion date is always of foremost importance. If the work is not completed on time and it is the contractor's fault, it may result in serious consequences such as the assessment of liquidated damages or even termination for default. Any delay experienced during performance is critical because of its effect on the progress schedule.

Delays may extend the completion date

- commensurate with the delay period, or
- by compounding each other, affect the project as a whole.

This "impact" or "ripple" delay may not be readily ascertainable, but can surface much later, at or near the end of contract completion. A complete reconstruction of all events leading up to and including the period of delay would be required to determine the exact impact of the delay.

Schedule

To some extent, the type of schedule (See Chapter 5.2) included in the contract will affect your ability to determine the impact a delay may have on the critical path and completion date.

1. Contractor shows that progress was actually delayed and proposes the length of the time extension to which entitlement is due.
2. You perform an independent analysis to ascertain the facts and the extent of delay based on the schedule in the contract.
3. The party, or parties, responsible for the problems and the delays are determined from the written records.
4. The specific activity, or activities on the "as-planned" schedule affected by the given problems or delays are identified;

In spite of careful planning, <u>delays are encountered in almost every construction contract</u>. They invariably cause damage in the form of

- lost revenue, or
- extra expenses
- to either or both

the Government and the contractor. You will need to analyze the salient features of the contract and identify the clauses which are applicable in order to determine the effects of any delay.

Exhibit 7-1 offers a preview of general principles concerning delays.

GENERAL PRINCIPLES OF DELAYS

- Any delay the contractor causes, the contractor bears the risk for time and money.
- Likewise, any unreasonable delay the Government causes, it bears the risk for time and money.
- If caused by neither party:
  - Government bears risk for time; and
  - Contractor bears risk for cost
- Not every delay incurred by the contractor is a Government caused delay.
- Not every delay for which the contractor is entitled to a time extension is a Government caused delay. Examples:
  - Strikes.
  - Freight embargoes.
  - Severe weather.
  - Acts of God.
  - Acts of another contractor.
- The Government is only liable for delay costs when it caused an unreasonable delay or suspended performance.
- The contractor must prove that extended overhead or unabsorbed overhead occurred. Contractors prove unabsorbed overhead by demonstrating that:
  - Other work was not available.
  - Bonding capacity was impaired.
  - Equipment was tied up.
  - Production personnel were idled.
- Contractors have the duty to mitigate delay damages.
- If Government delay and contractor delay are intermingled and cannot be factually separated, then the costs of delay will not be assessed to either party, although time extensions may be allowed.
- The contractor bears the costs associated with delays unless it can show a contractual basis for compensation, either by establishing the applicability of a clause or by proving the elements necessary to recover for acceleration.
- The contractor, within 10 days from the beginning of any delay must notify the contracting officer of the delay, as well as facts surrounding the cause. (Not always strictly enforced.)
- In order to recover for a compensable delay claim, the contractor has the burden of:
  - Establishing Causation (direct relationship between the alleged delay and the claimed period of delay), which requires good documentation.
  - Proving the Length of Delay. (Often required to be of an unreasonable long period); and,
  - The Absence of Concurrent Delays.
  - The delay must have been not Within its Control.
- Only an unreasonable delay is compensable. However, not every unreasonable Government delay is compensable.
- The purpose of allowing the contractor an excusable delay:
  - To offer the contractor protection from sanctions for late performance.
- Sanctions are:
  - Liquidated damages;
  - Termination for default; or
  - Actual damages.

Exhibit 7-1

Types of Delays

The three basic types of delay are:

l. Excusable (but not-compensable) which allows the contractor extra time but no money. (See Exhibit 7-2)
Examples:
- Acts of God.
- Unusually severe weather.
- Strikes or labor disputes.
- Sovereign acts of the Government.
- Subcontractor/supplier delays, not the fault of contractor.
- Non-enumerated causes of delay: (See Exhibit 7-3, however, these are not usually excusable, since they are considered within the contractor's control.)
  - Financial difficulties.
  - Lack of materials.
  - Lack of know-how.
  - Labor problems.
  - Lack of facilities and equipment.

2. Compensable which may allow the contractor both time and money.
Examples:
- Constructive suspensions for an unreasonable time.
- Constructive acceleration.
  The cornerstone of the constructive acceleration theory is an excusable delay. Constructive acceleration will be found if the contractor is required to accelerate to overcome an excusable delay.
- Ordered suspension for an unreasonable time.

3. Inexcusable for which the contractor assumes full liability and receives neither time nor money.
Examples:
- Fraudulent, malicious or bad faith conduct on the part of the contractor.
- Neglecting to order equipment, material or supplies.
- Employs insufficient workers to complete the job.

Basic Elements of Excusability

Not every delay is excusable. In applying the excusable delay provisions to a specific delay, a contractor must prove that:

- An event has occurred;
- The event was not the fault of the contractor;
- The event was the type for which an excuse is granted;
- Overall progress of the work was delayed;
- The event, in fact, caused the delay of the work; and
- Requested additional time is appropriate to compensate for lost time.

EXAMPLES OF EXCUSABLE DELAYS

Acts of God	Neither party is obligated to the other for additional costs or price increases resulting solely from acts of God, although a contractor may receive a time extension only. Natural disasters such as earthquakes, tornadoes, floods and similar happenings are in this category.
Unusually Severe Weather	Adverse weather which is unusual for the season and place in which it occurred. No matter how severe or destructive, if the weather is not unusual for the particular time and place, or if the contractor should have reasonably anticipated it, the contractor is not entitled to relief. Unusual severity is often demonstrated by comparing local weather records for the period of alleged delay with historical data for the same period.
Strikes & Labor Disputes FAR 22.101-2(b)	Strikes, like acts of God and unusually severe weather, serve as a basis for excusable delays, provided the contractor demonstrates by a preponderance of evidence that: (l) There was in fact a strike; (2) The strike directly affected its ability to perform; (3) The strike was beyond the contractor's control and did not result from its fault or negligence; and (4) There was no other labor pool than that affected by the strike from which the contractor could have performed.
Public Enemy	War created shortages, combined with the operation of Government issued priority ratings, constitute an excusable delay, e.g., shortages in steel, rubber, oil, etc.
Government Acts In Its Sovereign Capacity	When the Government acts in its sovereign capacity, such actions cannot be deemed to alter, modify or obstruct the contracts it has entered into. The Government is deemed to have acted in its sovereign capacity when the nature of its acts are public and general. (Can't be tied directly to CO.)
Subcontractors & Suppliers	A contractor may be entitled to an excusable delay for those delays caused by subcontractors and suppliers, but only if the cause was beyond the control, and without the fault or negligence of suppliers or subcontractors at any tier. This means that excusability must be shown for parties at the various tiers.

Exhibit 7-2

NON-ENUMERATED CAUSES OF DELAYS BY THE CONTRACTOR *

Financial Difficulties	"The general rule is that the contractor assumes the risk of providing sufficient funds to perform the contract. Thus, neither under-capitalization nor insolvency excuses a failure to perform. However, in some cases the failure may be held excusable. Additionally, in contrast to the general rule denying relief for delays due to lack of financing, the contractor may be granted relief when the lack of financing is caused by wrongful Government action. However, care must be exercised when applying this concept. In instances where the Government frustrates the contractor's financing, but can establish that it did so in reliance upon a contract or administrative right, the Boards of Contract Appeal will generally support the Government action."
Lack of Facilities & Equipment	"Failure to have the necessary machinery or other such means for performance is not a valid excuse for failure of timely completion. Thus, a breakdown of a contractor's machinery is not excusable per se, unless such a breakdown can be shown to have been caused by one or more of the causes listed in the Default clause."
Lack of Materials	"The contractor assumes the risk of obtaining materials necessary for performance. However, unforeseen shortages such as ones which are created by wartime, or embargoes, such as the oil crisis which was experienced in 1973 are excusable."
Lack of Know-How	"A construction contractor is expected to have the level of know-how as any other qualified construction contractor would have for the same discipline. The usage of materials and tools, as well as production methods and their coordination, are all within a contractor's basic performance responsibility as aspects of know-how. For this reason lack of know how is rarely excusable."
Labor Problems	"In the absence of a strike, or other enumerated causes of delay, a contractor is generally not excused for labor difficulties. The boards have strictly adhered to the rule that the contractor assumes the risk of hiring and retaining a competent work force."

* Information presented is extracted from various parts of Cibinic and Nash "Administration of Government Contracts, Second Edition", The George Washington University. (Non-enumerated means not covered by a contract clause.)

Exhibit 7-3

For the event causing the delay not to be his or her fault, the contractor must prove that it was:

- beyond his or her control;
- without the fault or negligence of either the contractor or subcontractor; and
- unforeseeable.

In an inexcusable delay, the contractor

1. Bears the costs associated with the delays unless a contractual basis for compensation can be shown either
   - by establishing the applicability of a clause or
   - by proving the elements necessary to recover for acceleration;
2. May be assessed liquidated damages to compensate the Government for the delay; or
3. May be in breach of contract and terminated for default.

Identify Type of Delay

To determine which of the three types of delays is applicable in a given circumstance, you must:

Step #1: Examine the contract language;
Step #2: Identify who is responsible for the delay; and
Step #3: Study the cause(s) and factors surrounding the delay.

The various contract clauses that deal with equitable cost and time adjustments made necessary by excusable delays, are:

Changes	FAR 52.243-4
Suspension of Work	FAR 52.212-12
Differing Site Conditions	FAR 52.236-2
Default	FAR 52.249-10

Once the clause has been identified with the delay situation, the source of the delay can be identified and a determination made as to the responsible party:

- Government;
- Contractor;
- Both Government and contractor (i.e. concurrent delays); or
- No one is to blame, (i.e. Act of God).

Risks are specifically allocated by contract clauses. Standard clauses expressly provide for time extensions or price adjustments should various contingencies occur. Although the risk allocation scheme is not completely precise in application, the system has resulted in an equitable distribution of risks in most cases.

The contractor has some flexibility in selecting the clause or clauses under which to seek relief. You should scrutinize those choices, examining:

- whether the choice is appropriate,
- the burdens each clause places on the contractor, and
- what amounts are compensable.

A contractor's recovery for an excusable delay is contingent upon the contractor following the procedures imposed by the applicable clause. Each of the clauses requires the contractor to

- give notice in writing,
- substantiate evidence of the delay,
- demonstrate that the delay was unreasonable, and void of any concurrent delay.

Concurrent Delays

Concurrent delay occurs when two or more delays happen at the same time. Assessing concurrent delays is often a most difficult task, particularly when both the Government and the contractor share responsibility for a delay. Such delays can be considered critical, non-critical, or both, depending on whether the delays have an impact on ther critical path.

In settling claims in which concurrent delays were in evidence, Courts at one time would not try to determine who was at fault, especially if it appeared difficult to do so. The recent trend, however, appears to be toward an allocation of the delay between the Government and the contractor, with the contractor entitled to recover only for the amount that is the result of the Government action.

> If the Government is responsible for the overriding delay (i.e., has a greater impact upon the project completion date), and the contractor is responsible for the lesser delay, then the Government is primarily responsible.
>
> When there is a Government-caused excusable delay commingled with the contractor's nonexcusable delay, the general rule is that the Government will lose its right to assess liquidated damages, but the contractor will not be entitled to collect costs for delays.

Once you have categorized the delay, you can then determine whether to ① allow a time extension and/or monetary relief or ② decide if you should impose sanctions. (i.e., liquidated damages, default termination, reprocurement costs, etc.)

Allocating Delay

Frequently, total delay is divided into reasonable and unreasonable portions, with adjustments being made and granted for only that portion of the delay that is considered to be unreasonable.

For example, work is suspended for 30 days while the Government makes a decision with respect to the installation of some soffits. Later, a Board of Contract Appeals holds that a period of five days is ample time in which to arrive at such a decision and the balance of the 25 days used for deciding was unreasonable. Therefore, the contractor is entitled to the overhead cost incurred by it during the 25-day period of unreasonable delay.

Causes of Delay

FAR 52.243-4 &5

CHANGES: During contract performance, the Government may issue a change order to alter various contract clauses or specifications in order to incorporate changing needs (which occurs frequently in construction). When a contractor is required to perform in a manner other than that anticipated in the contract, either in

- the sequencing of the work,
- the actual work performed, or
- the period during which the work is undertaken,

the contractor is likely to experience delays in performance as well as increased costs, and may seek adjustments, both in terms of time and money under a provision permitting recovery for compensable delays.

Time extensions for changed work that is added by a contract modification must:

- Delay the project by impacting a task on the critical path, or
- Add additional critical path work.

The additional time is computed by estimating the time that would be required to do the work, as of the effective date of the modification.

SUSPENSION OF WORK: You can grant recovery of costs under the Suspension of Work clause only for delays which are unreasonable in duration. Ordinarily, the contractor has the burden of proving ① that a delay is unreasonable and ② the length of the delay. To test for unreasonableness, you need to analyze the total surrounding contract environment, including the

- contract's allocation of risk,
- contractor's particular needs at the time,
- Government's interests, and
- foreseeable consequences of Government's actions or failure to act.

A contractor seeking recovery under the Suspension of Work clause does not have to establish the equivalent of a change order, but merely that its work was

- suspended, delayed, or interrupted for an unreasonable time period
- by the Government's actions or inactions.

When disruption, caused by a suspension of work, has concurrent costs, the contractor should be compensated under the theory of equitable adjustment. The Suspension of Work Clause does exclude recovery

- if concurrent delays are evident,
- if other clauses provide for, or exclude an equitable adjustment, or
- for profit.

Constructive suspension is any

> "act, or failure to act by the contracting officer which interferes with the performance of the work."

Even though a contractor does not receive an affirmative order suspending work, the facts can indicate that the suspension order should have been issued and therefore the contractor is entitled to an equitable adjustment.* Delays caused by constructive suspensions are frequently avoidable.

The Government's failure to act can generally be attributed to:

- An oversight by the Government; (avoidable)
- Conditions beyond its control; (e.g., resolving technical problems such as an unforeseen sub-soil site condition) or
- Convenience of Government. (e.g., Government needs extra time to make changes such as in a differing site conditions.)

Exhibit 7-4 lists some typical constructive suspension delays that may be encountered in a construction contract.

Immunity protection, conferred by the Sovereign can affect constructive suspensions. The question arises as to whether the constructive suspension is caused by

- an act or failure to act by the Government or
- by a sovereign act of the Government.

Any action by the Government in its sovereign capacity, and not as a party to the contract is not a sufficient basis for recovery. The Govern-

*This legal doctrine has its origin in a decision of the 1948 Army Board of Contract Appeals in which it declared that it would treat "as done what should have been done."

TYPICAL CONSTRUCTIVE SUSPENSION DELAYS

- Failure to issue Notice to Proceed.
- Nonavailability of the site.
- The Government's interference with the contractor's work.
- Failure to process approvals.
- Failure to obtain funding.
- Overzealous inspection of work.
- Failure to issue changes in a timely manner.
- Alteration in the sequence of work.
- Failure to furnish Government property.
- Failure to inspect.

Exhibit 7-4

ment commits a sovereign act when its action is part of its duty to the general public.

FAR 36.502

DIFFERING SITE CONDITIONS: Relief can be granted a contractor when unforeseen site conditions are encountered which result in added costs.

> **For example**, soil may be of inadequate bearing capacity to support the facility being constructed. Additionally, unanticipated ground water, quicksand, muck, rock, and artificial sub-surface structures may be encountered and impede excavation or make the actual construction process much more expensive than originally planned.

All of these unforeseen conditions may cause delays that result in expensive equipment and labor standing idle until solutions can be found to correct the problem.

To receive an equitable adjustment for differing site conditions, a contractor has the burden of establishing:

- That a differing site condition exists, as well as
- Normal elements of a compensable delay claim which consist of:
  - Establishing the length of the delay,
  - Stipulating the cause of the delay,
  - Identifying any impact or ripple effect, and
  - Requirement for a written notice to the CO.

If the delay is the Government's fault through negligence, its actions or failures to act, or the disregard of the contractor's rights, an extension of time should be granted.

Acceleration

Acceleration involves the speeding up of work in an attempt to complete performance earlier than otherwise anticipated (or meeting original date after a delay), either

- the originally scheduled completion date, or
- a completion date which has been extended by contract modification.

Because the contractor would be required to perform at a quickened pace, increased costs are likely, and compensation may be sought.

There are two types of acceleration: Actual and Constructive.

Actual acceleration occurs as a result of the Government directing, in writing, acceleration in the performance of the work. The authority is derived from the Changes clause which states:

FAR 52.243-4

> "The contracting officer may, at any time, without notice to the sureties, if any, by written order designated or indicated to be a change order, make changes in the work within the general scope of the contract, including changes... (4) Directing acceleration in the performance of the work"

To receive compensation, the contractor needs only to prove how the schedule has been impacted.

Constructive acceleration is based on the premise that for each excusable delay, the contractor is entitled to a commensurate extension of the contract completion schedule. Thus, during performance, the original contract schedule will gradually be extended as excusable delays are encountered. If you do not recognize these changes by extending the contract completion date accordingly, but instead you demand performance in accordance with the original schedule, your action may be treated as a constructive acceleration.

When no change order has been issued, the constructive acceleration claimed by the contractor must consist of several elements:

- There must be one or more excusable delays.
- Contracting officer must have had knowledge of the existence of the condition/situation; (may be actual or implied if either the contracting officer, the inspector or someone else should have known of the delay.)
- There must be action by the Government that the contractor construes as being an order for acceleration.

- Actual acceleration must have occurred.
- The contractor must have served notice of such delay to the contracting officer, and was not granted a time extension when one should have been granted.
- There must be incurrence of extra costs as a result of the acceleration.

Determining what type of statement or action constitutes constructive acceleration order is always difficult. The Government may inadvertently cause constructive acceleration to occur by any one of the following actions:

- Issuing an order outside of the scope of the Changes clause.
- Making a request to accelerate.
  - ☞ It is difficult to determine whether an accelerated order has been issued in cases where no direct order can be shown. However, several rules have emerged in this regard:
    - A request to accelerate the work is tantamount to an order to do so.
    - The request must be "quite firm" to constitute an order.
    - Suggestions are not enough.
- Failing to grant a time extension.
  - ☞ When one should have been granted; or when the contractor is compelled to complete performance before it is contractually required to do so.
- Threatening that you intend to terminate for default.
  - ☞ A threat to terminate may constitute constructive acceleration when there has been a recognized excusable delay. However, the contractor must make it quite clear to you that your threat to terminate for default is being construed as an acceleration order and that the Government will be expected to pay for the extra costs incurred.
- Putting pressure on the contractor to complete the schedule.
  - ☞ If you or the inspector have maintained a posture of urgency during the entire performance of a contract, that attitude has been construed as a direction of the contracting officer to make up lost time by accelerating. However, if the contractor remains silent throughout the same period, the contractor is deemed to have acquiesced by the absence of any showing that the pressure being exerted was unreasonable.
- Refusing to grant a time extension.
  - ☞ The Government's inaction on requests for time extensions leaves the contractor in a tenuous position. If it cannot find out whether the Government intends to grant the time extension it has requested, there is no basis for making a rational

decision as to whether to accelerate or to run the risk of default termination or the assessment of liquidated damages. Hence, this is another example of the need for you to communicate with the contractor. The contractor also has the duty to communicate when action on the request has been deferred.

In constructive acceleration, the Government has failed to recognize a bonafide Government-caused or excusable delay, having insisted instead on a "shorter" completion schedule without adjusting the contract.

There is no acceleration unless you require the contractor to perform the work at a faster rate.

- It is crucial for you to determine whether or not the contractor is on or ahead of a properly adjusted schedule at the point in time when the order was issued.
- If you determine that the contractor is behind schedule, any order given to speed up the process, may be proper.

Exhibit 7-5 provides some additional information related to acceleration.

ACCELERATION

① Action is NOT exclusively related to time. It is also effort related.

② The concept is NOT strictly critical path related. Tasks not on the critical path can be accelerated.

③ If a contractor is ordered to gain time on the schedule and makes a good faith effort to do so, the contractor is entitled to financial recovery, even if unable to gain the requested time.

√ A contractor may delay performance resulting in the need to add additional shifts or work overtime to regain lost time on the schedule as required by the Schedules clause. Whenever this occurs, the contractor may consider these actions to be acceleration, but the intent is only to regain lost time and not to finish the project or any particular task early. This is not considered acceleration and is NOT compensable by the Government.

⑤ If the Government delays the contractor's progress and is slow in granting additional time or refuses to grant an equitable adjustment to the contract time, the contractor will be forced to accelerate in order to complete the work by the original contract completion date, plus the number of days time extension due. This type of acceleration is compensable by the Government.

≈ Acceleration has a "Loss of Efficiency" impact: the contractor cannot plan or coordinate tasks in the project as effectively or at as fast a pace.

Exhibit 7-5

If the contractor is to file a claim based on acceleration, a statement must be filed

1. Within 30 days following receipt of the acceleration order, describing the general nature and amount of the proposal; or
2. If the contractor believes that constructive acceleration has occurred, a comparable proposal must be submitted, as well as a written notice giving details such as stating the
   - date that the constructive acceleration occurred,
   - circumstances,
   - source of the "order", and
   - events which are regarded as constituting a change.

   No costs incurred by the contractor prior to 20 days before the notice is given can be compensated.

The **reasoning behind the notice** to the contracting officer is that the contracting officer cannot be held to have ordered an acceleration if he or she had no knowledge of the delay, and hence no knowledge of the contractor's entitlement to a revised schedule.

Once the notice is given, the burden rests on the Government. The contracting officer shall ascertain the facts and the extent of the delay and extend the time for completing the work if an excusable delay is found.

FAR 52.249-10(b)(2)

Within 10 days from the beginning of any delay, the contractor must notify the Contracting Officer of the delay, as well as facts surrounding the cause.

7.2 Effects of Delays on Time

Measurement of a delay requires the establishment of a yardstick to identify a baseline against which the delay can be measured. Once all of the effects of the delay are quantified, you can determine the impact on the schedule.

Compare to Planned Schedule

When you perform a delay analysis, whether it be during performance or after the fact, it is most beneficial to compare the schedule as originally planned to the current schedule which has incorporated all of the changes, including delays:

- Identify the as-planned version of the schedule;
- Adjust it as necessary;
- Prepare an as-built version;
- Identify delay factors causing the delay; and
- Analyze all delays to determine the sequence which established the project completion date; then the second most severe delay sequence, etc.

The planned schedule is the one you approved subsequent to contract award. It illustrates the contractor's exact road map of how he/she intended to pursue the scope of work in the specified period of time. It is the baseline for the measurement of actual performance as it is reconstructed.

The "as-built" schedule is basically the planned schedule with actual contract performance and elements of delay and disruption built into it. It should depict the actual sequencing of activities and delays encountered, which can be used to

- focus attention on specific delays,
- identify compressed work activities indicative of acceleration, or
- determine if any current delays exist.

In a delay claim,

Contractor must show:	that but for the delay, the project would have been completed on time.
You must counter: (if you disagree)	that the delay did not cause late completion of the project, even though an individual activity may have been delayed.

In evaluating a contractor's claim, a graphic network analysis of the accumulated data can be helpful to you. The forcefulness that a visual presentation enjoys over the narrative is not the only advantage: it can be updated easily if developed on a computer.

The particular network analysis scheduling technique which you and the contractor are going to use in determining the effects of a delay has been predetermined and is specified in the contract:

- It is the same progress schedule that you approved as being reasonable prior to the contractor commencing work.
- It is also the same one that you use in making progress payments to the contractor.

The most common methods of producing a progress schedule are the CPM and Bar Chart, but there are others which are suitable for construction:

- Arrow Diagram Method (ADM);
- Program Evaluation Review Technique (PERT); and
- Line of Balance (LOB).

Exhibit 7-6 is an excerpt from a construction court case aptly describing the environment in which the parties often work, and which highlights the importance of a properly developed and monitored schedule.

PROFILE OF A CONSTRUCTION CONTRACT SCHEDULE FOR COMPLETION

"..... Except in the middle of a battlefield, nowhere must men coordinate the movement of other men and materials - in the midst of such chaos and with such limited certainty of present facts and future occurrences - as in a huge construction project ..... Even the most painstaking planning frequently turns out to be mere conjecture, and accommodation to changes must necessarily be of the rough, quick and ad hoc sort, analogous to ever changing commands on the battlefield."

Blake Construction Co., Inc. v C. J. Coakley Co., Inc., 431 A.2d 569 (D. C. 1981)

Exhibit 7-6.

Although in particular situations the systems may be critically different, the network analysis techniques operate in fundamentally the same way, requiring the use of, and displaying the same basic types of information.

Appendix A provides an analysis of how each is applied to delay situations.

Bar Chart

Bar Charting is a planning technique that is easily prepared and updated and widely used on construction projects as an economic control tool. The schedule essentially plots progress as opposed to a cumulative percent of completion. The progress bars compare targeted versus actual progress.

The **Gantt-Type Bar Chart** schedule has been, and is likely to continue to be, the major control tool for monitoring progress in the construction field. It is a graphical presentation of work versus time.

Vertical column:	lists major individual activities.
Horizontal column:	illustrates the time scale.

A bar is then drawn on the graph representing a period of time from the commencement to completion for each particular activity. Each bar indicates ① when a particular task will begin, ② the time required, and ③ when it will be finished.

While most Bar Charts are kept rather simple in terms of content, there are those that take a more sophisticated approach and add

- cost projection and
- manpower forecast curves

on the time grid. Bars are plotted for each work item. The development of this form of progress schedule continues to be made an increasingly difficult task, as sub-contractor specialties increase in numbers and become narrower in scope.

Benefits of the Bar Chart method:

- Less costly to produce and maintain;
- Shows milestone dependencies;
- Shows work-in-place versus resource consumption comparisons;
- Can be used for rough resource & time consumption forecasting;
- Can be money or resource loaded;
- Shows variable outputs and phases of work put in place.

Deficiencies of the Bar Chart method:

- Fails to show the interrelationships and interdependencies of the elements which comprise a project. This may be important in delay situations.
- Does not show float, or contingency time.
- No way of determining whether work is critical or non-critical.
- Impact analysis cannot be performed.
- Limited amount of information can be shown. The more detailed it becomes, the more difficult it is to interpret.
- Resources cannot be accurately allocated and distributed.

Another deficiency of the Bar Chart method is demonstrated in Exhibit 7-7. Notice that the preparer was probably thinking primarily about construction tasks, erroneously assuming that material and manpower is always available when needed.

- This assumption can result in improper timing for the execution of the work.
- Furthermore, even if the work is properly timed in the initial Bar Chart, a subsequent late submittal, approval, or delivery could go unnoticed for some time and adversely affect work progress.
- Since the Bar Chart fails to indicate or record the interdependencies or relationships of the various activities which control the progress of the project, you may find it difficult to accurately assess delays.

Techniques, such as CPM or PERT, apply better logic to the process of planning, scheduling, and monitoring of construction. (Exhibit 7-8 shows a simplified BAR/CPM comparison.) They accommodate (in fact, demand) consideration of a wide variety of related and unrelated influences.

Scheduling a variety of resources to each of several tasks which are often competing against each other is simplified by virtue of the fact that the elements of the schedule must be well correlated with the project plan completion date.

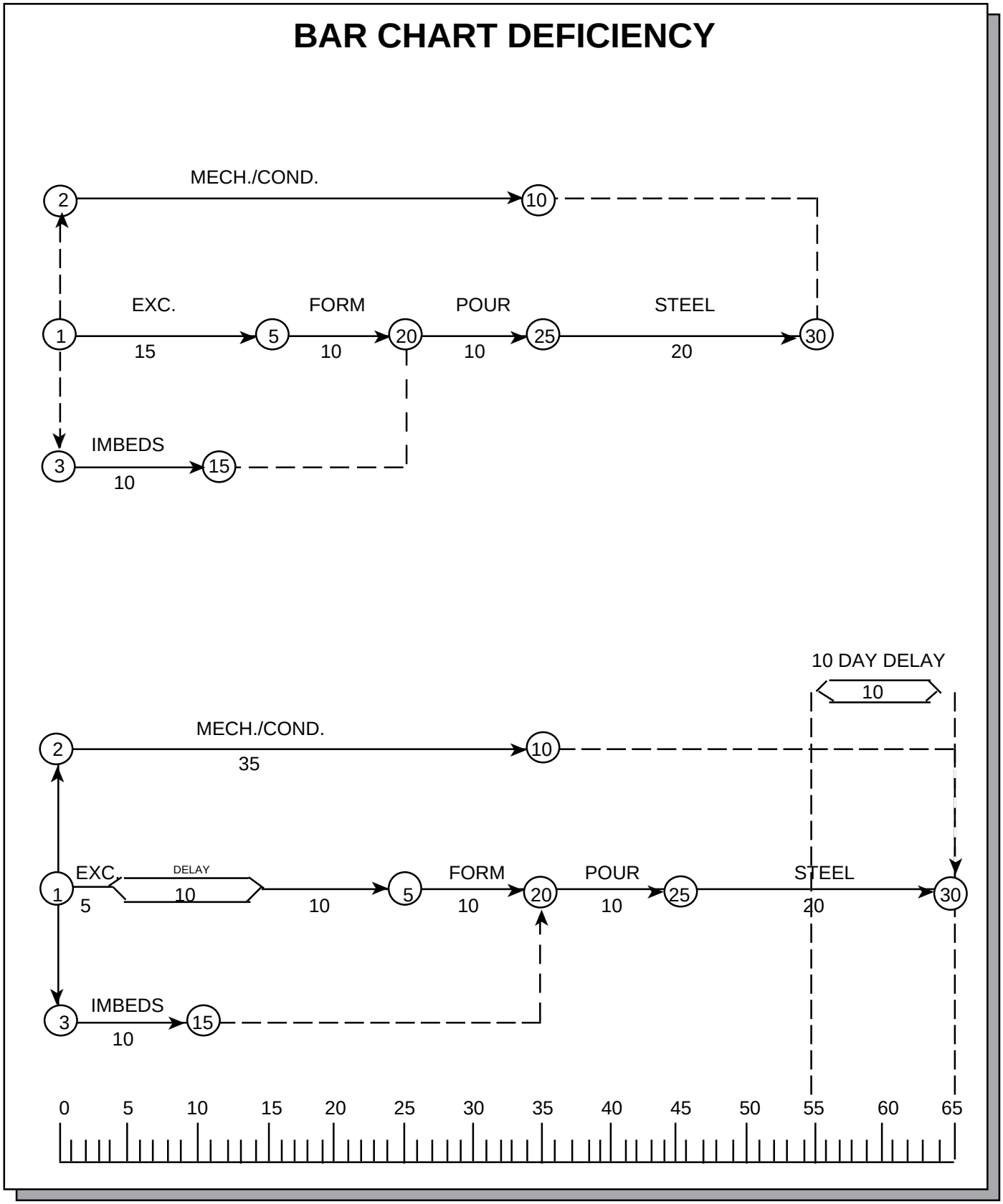
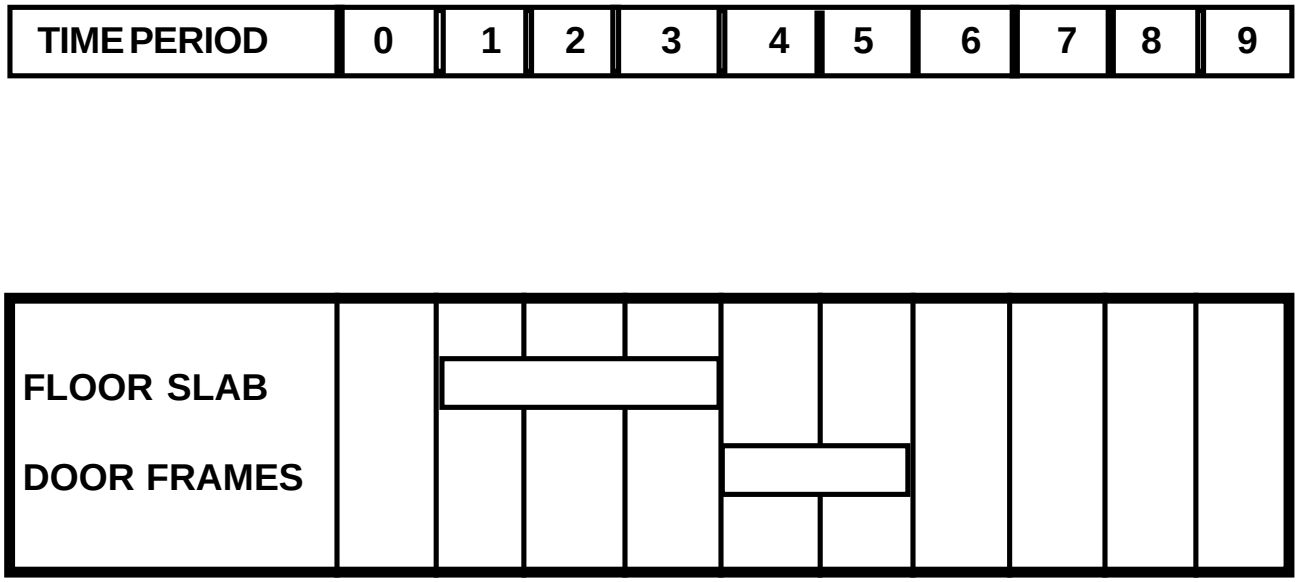
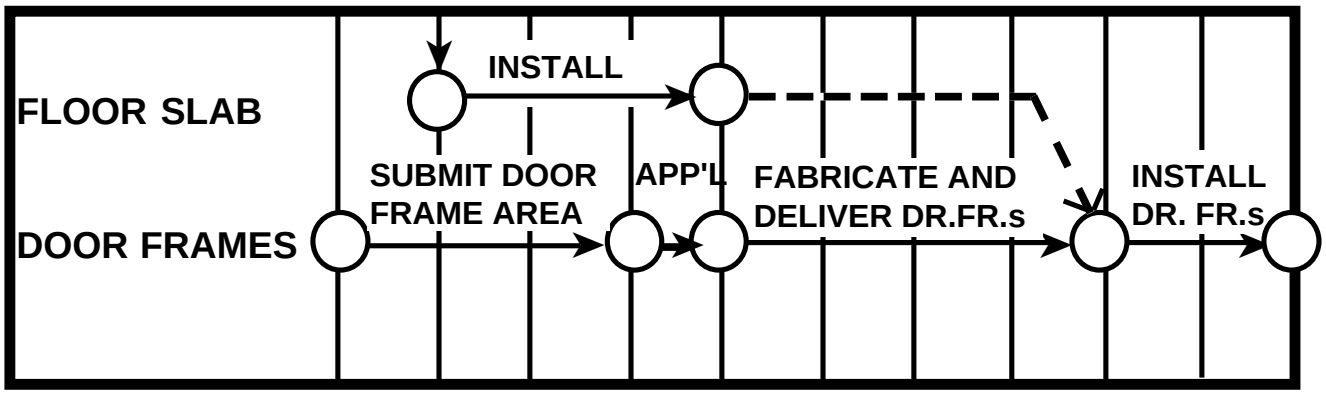

BAR CHART DEFICIENCY
MECH./COND.
EXC.
FORM
POUR
STEEL
IMBEDS
15
10
10
20
10
35
5
DELAY
10 DAY DELAY
0 5 10 15 20 25 30 35 40 45 50 55 60 65

Exhibit 7-7

BAR CHART/CPM NETWORK COMPARISON



BAR CHART



C.P.M. NETWORK

Exhibit 7-8

These networked schedules predict the degree of importance (criticality) of each element of the schedule, and in this way aid both the contractor and the Government construction manager in determining which actions to take in meeting intermediate project schedule target dates.

Section 1 of Appendix A provides step by step instruction in creating a Bar Chart.

Critical Path Method

CPM can basically be described as a

- graphic presentation of
- the planned sequence of activities which
- show the interrelationships and interdependencies of
- the elements which comprise a construction project.

If used properly, both you and the contractor will be able to identify delays with great precision, often before the delays actually occur. A good description of CPM can be found in the BCA decision quoted in Exhibit 7-9.

THE CPM SCHEDULING TECHNIQUE

"The CPM scheduling technique is one which requires a breakdown of the entire work into individual tasks and an analysis of the number of days required to perform each task. The analysis is then programmed into a computer which produces a chart showing the tasks and a line which controls the completion of the over-all work. The line through the nodes, the junction points for completion of essential tasks, is known as the critical path. In addition there are numerous side paths for subordinate tasks which normally can be performed without affecting the critical paths. However, these subordinate tasks if improperly scheduled or unduly delayed in performance, can become critical on occasions, thus changing the critical path for the entire work.

The critical path method of scheduling requires the logical analysis of all the individual tasks entering into the complete job and the periodic review and reanalysis of progress during the performance period. It is essential that any changes in the work and time extensions due to the contractor be incorporated into the progress analysis concurrently with the performance of the changes or immediately after the delay and thus integrated into the periodic computer runs to reflect the effect on the critical path. Otherwise the critical path chart produced by the computer will not reflect the current status of work performance or the actual progress being attained."

Continental Consolidated Corp., ENG BCA 2743, 2766, 67-2 BCA 6624 provided at 30,715.

Exhibit 7-9

Advantages of using CPM**:**

- Gives you a more intimate knowledge of the sequence and interrelationships existing within a planned project through the device of a graphical arrow diagram depicting these sequences and relationships;
- Provides a more accurate and detailed picture of the forecasted completion dates of the various project phases;
- Provides a more thorough understanding of time, resources, and costs required to accomplish the project in the desired completion period;
- Allows for a more accurate picture of the elapsed time, accumulated costs, as well as the forecasted required times and costs for completion after the project is underway.

Disadvantages of using CPM:

- Too theoretical, failing to reflect a practical picture of the problems involved;
- Too complex for use in small projects;
- May cost too much money;

Once the schedule is completed, the **critical path** is the longest chain of interrelated (now critical) activities through the network from the beginning to the end. These critical activities control the completion of the project, because delay to an activity on this path results in delay to the overall project completion.

Float, which is sometimes referred to as "slack" time, represents the number of days a particular activity can be delayed or extended without affecting the overall project completion date. An excellent explanation of float can be found in the BCA decision quoted in Exhibit 7-10.

FLOAT

"Those paths that do not lie on the critical path have a certain flexibility in that there is a difference between the earliest and latest expected times for a particular event. This difference, called "total float" in CPM, allows the manager latitude in the scheduling of non-critical activities that originate or terminate at that event, and to effect tradeoffs of resources to shorten or control the project. Total float is the time any given activity may be delayed before it will affect the project completion time. It is the difference between the latest start time and earliest start time. It is also the difference between the latest finish and the earliest finish."

Joseph E Bennett Co., GSBCA 2362, 72-1 BCA 9364, at 43,467.

Exhibit 7-10

Much to do has been made as to who "owns" the float time. The issue of ownership of float is of concern in dealing with time extension analysis and costs. The ownership of float is best settled by

identifying the owner in the contract specification,

so that all parties know how the issue of float will be handled throughout performance of the contract.

One of two positions is usually decided regarding float ownership:

- Float is for the exclusive use of the Government; or
- It belongs to the project and whoever needs it first. (This position is generally followed by Government agencies.).

In the latter situation, you will grant time extensions only when time adjustment for an activity, or activities, affected by a change or a delay exceeds the total for the remaining float.

Once construction is in progress you may find that there will be factors occurring which may impact or influence the amount of float remaining in any activity path, i.e.

- Incorporation of actual finish dates,
- Project changes, and/or
- Incorporation delays which affect the sequencing of the work or added work.

Section 2 of Appendix A provides step by step instruction in developing a CPM.

Program Evaluation Review Technique

While the CPM method is probably the most widely used and accepted scheduling device, PERT is another method which can easily be applied to construction projects.

Advantages of PERT:

- Designed to allow the construction manager to plan and schedule both large and small projects in terms of time and cost;
- Provides information for decision making, allowing the construction manager possible "trade-offs" in order to improve the chances of meeting the time schedule;
- Quantifies knowledge about uncertainties faced by the various activities responsible for meeting the time schedule;
- Can quickly provide the results of alternate courses of action.

A disadvantage of PERT is the time and money it takes to do a complete PERT analysis.

The process of application is similar to that of CPM; a major difference between CPM and PERT is the manner of expressing time estimates.

- The intent of PERT is to obtain a realistic appraisal of the time required to accomplish each activity.
- PERT uses three estimates of the time required to complete an activity, rather than one estimate which is used in CPM.
  - Most optimistic time.
  - Most pessimistic time.
  - Most probable duration.

Section 3 of Appendix A provides an explanation of the three estimates, and the formula which is applied for calculations in the use of PERT.

Arrow Diagram

The two techniques of the Arrow Diagram Method (ADM) and PERT are quite similar and are based upon the same fundamental principles. However, ADM like CPM differs from PERT in that the latter uses three estimates of the time required to complete an activity.

Line of Balance

The Line of Balance Technique may be more suitable for highly-repetitive construction projects such as:

- Multiple-housing/tract development projects;
- Multiple warehouse construction projects;
- Extensive freeway construction projects where the progress measurement unit is one mile or some such similarly repeated unit; or
- High-rise buildings.

Although LOB was originally introduced as a production control technique, it has been successfully adapted for monitoring progress on large construction projects. It is especially useful for monitoring progress on a construction project requiring many specialty subcontractors.

LOB highlights potential problems early so immediate action can be taken before the problems grow to impossible proportions.

LOB consists of a display of four separate elements (charts):

- Objective Curve
- Program Plan
- Progress Chart
- Comparison

The Line of Balance Technique:

- Highlights areas for study to find out what is wrong. It does not tell you what is wrong.
- Helps in predetermining what can be expected to happen if any of several courses of action are taken. It does not tell you what should be done.
- Is an aid to making a decision which could (and usually does) result in a change in the rate of performance.
- Is a performance monitoring tool. It is not a budget control tool. (It may be adapted to perform as such.)
- Is a deliberately simple graphical display of basic information. It is not complicated.

Strictly speaking, LOB is not considered a member of the family of network analysis techniques. The concept is different. However, it is considered an excellent method for use in conjunction with a network analysis.

Section 4 of Appendix A provides an explanation of each of the elements in the LOB Technique and illustrates the process.

7.3 Effect of Delays on Cost

Having addressed the "time aspect" of delays, you must now evaluate the cost to the contractor of the delays. The old adage "time is money" is most applicable to construction. A contractor who experiences delays or disruptions during performance is likely to incur increased costs. Increased direct costs may result from:

- Delay to a time when labor and material prices are higher than that originally anticipated;
- Standby of labor and equipment when it becomes impractical to make other use of the same labor and equipment; and
- Less efficient production after resumption of work due to loss of personnel creating:
  - Lowered morale.
  - Learning curve interruption.
  - Performance of work out of sequence.
  - Shift of work from good weather to bad weather.
  - Shut-down and start-up costs.
  - Work area congestion.
  - Storage of materials, and rehandling.

Impact costs, such as these, are difficult to quantitify.

The increases may be simple and straight forward to determine, or they may be extremely complex and difficult to distinguish.

For example, a construction contractor who is delayed for a month while erecting a wall may find, when work resumes, that:

- Brick masons have received a wage increase;
- The cost of mortar has increased;
- The subcontractor originally scheduled to lay brick is now busy on another project and cannot do the job;
- Bad weather has closed in, causing heavy rain and resulting in muddy conditions, making it impossible to work.

In the meantime certain costs, such as **overhead**, continue to be incurred regardless of the delay. Salaries, rent, utility bills etc., continue to mount and must be paid.

Recovery by the contractor of these "impact and delay" costs has been the subject of considerable controversy and confusion. Since they result from a lack of productivity, they are often referred to as “disruption,” or “ripple effect” costs by contractors. Increased costs may be caused by such events as:

- Contractor being required to perform in a manner other than that specified in the contract.
- Altering the sequence of operations;
- Using inefficient methods of performance;
- Being forced to work in later time periods;
- Performing during periods of interference;

The extent to which delay and impact costs are recoverable depends upon

- nature of the Government’s action or inaction, and
- theory under which the contractor presents the case.

If the Government’s action merely results in a reasonable delay, with no physical changes in the work to be accomplished, you can not permit any cost adjustments to be made.

The contractor’s recovery must be sought through

- actual breach of contract, or
- under the Suspension of Work clause.

Under either suspension or breach theory, both delay and impact costs may be recovered. However, if the Government’s action results in more than just delay, it is considered to be under the

- Changes clause, or
- Differing Site Condition clause, in which case the matter becomes more complex.

There are different methods of calculating the impact cost of delay, which can result in substantially different amounts for recovery money, thereby testifying as to why the pricing of adjustments for delay is unexacting and the subject of much discussion and controversy.

FAR 31.105(c)

In construction contract claim situations, the Government imposes upon contractors certain pricing and accounting practices which are similar to that required by any other Government contract. If delay situations result in a claim, you must follow the cost principles and cost accounting standards depicted in Exhibit 7-11.

MANDATORY PRICING AND ACCOUNTING PRACTICES

Cost Principles (FAR Part 31) define which costs are allowable and allocable. They are incorporated by reference into all Government contracts, and must be used in the negotiation of all price adjustments.

Cost Accounting Standards (FAR Part 30) are detailed rules governing cost determination and accounting practices which were originally promulgated by the Cost Accounting Standard Board (CASB). CAS Standards are applicable only to certain large contracts.

Exhibit 7-11

In deciding whether a cost is proper, use the Five Factor Test to determine if the cost is:

1. Allowable,
2. Allocable,
3. Reasonable,
4. Within the terms of the contract, and
5. Accounted for under generally acceptable accounting principles and practices appropriate to the circumstance.;

The Government refuses to reimburse certain costs the contractor may incur that are

- unreasonable in amount or
- inconsistent with public policy.

They are not necessarily costs that can be avoided. Some costs are completely unallowable, others have only a limited (usually expressed as a percentage) allowability.

Whether you are ① negotiating with a contractor for impact costs associated with a delay that you agree with or ② are responding to a claim resulting from a delay (or impact costs) you have denied, the contractor must submit detailed information including cost and pricing data to support his claim.

Actual cost data is the most reliable source, as well as the most convincing proof of increased costs attributed to a delay. The data should be segregated whenever possible, tracking the specific costs associated with the delay. In addition, the contractor must prove that costs are reasonable.

Types of actual cost records the contractor should submit include:

- Payroll records
- Purchase orders
- Balance sheets
- Estimates
- Supplier contracts
- Invoices
- Copies of subcontracts
- Inspectors' daily logs
- Original bid worksheets and recap
- Equipment ownership records
- Ledgers and journals
- Equipment rental invoices
- Quotations from suppliers or subcontractors
- Estimated costs supported by detailed substantiating data

Other sources for determining costs include:

- Expert testimony
- Learning Curve
- Statistics
- Previous similar buys
- Indices (e.g., producer price indexes)

Methods of determining costs (i.e. equitable adjustment) are:

- Total Cost
- Modified Total Cost
- Jury Verdict

Total Cost

The total cost method measures damages by

1. Computing the total actual costs of performance for the entire job, or a segment thereof,
2. Then subtracting the original estimated construction costs figured during the bidding stage.
3. Difference represents the contractor's overrun, and thus the measure of the adjustment being sought.

Courts and BCAs have looked upon the total cost method with disfavor because it is based upon four questionable conditions which provide a

potential for not accurately reflecting the true cost of the contractor:

1. Original bid estimate was accurate.
   [It could have been low to begin with.]
2. Reasonable actuals.
   [Actual costs may be inflated due to poor management.]
3. Contractor has no responsibility for the additional costs incurred.
   [May not be true.]
4. Cannot arrive at equitable adjustment using any other method.

☞ **NOTE:** The Defense Contract Audit Agency also disfavors the total cost approach. Auditor's are directed, regardless of the quality of the contractor's records, to develop some sort of quantum for an equitable adjustment so as to avoid having a board allow recovery on a total cost basis.

Modified Total Cost

The modified total cost approach measures the difference between

- actual costs incurred, and
- a reasonable estimate of what costs would have been, absent the inefficiency and disruption.

Modifications are made to adjust the claim difference allowing for any causes of cost increases not attributable to the loss of efficiency emphasizing the affected portion of the work.

Thus damages are equal to:

- Actual cost of performing the affected work **minus**
- Costs incurred due to the contractor's fault **minus**
- The contractor's bid price.

Jury Verdict

The jury verdict method is used by BCAs, courts, and arbitration panels to determine the amount due a contractor based upon evidence presented as to estimated costs of a number of claim items. This approach allows broad discretion in setting the amount of an equitable adjustment and permits consideration of numerous other techniques for pricing a claim.

Once all of the evidence is presented, each separate item is examined in an attempt to arrive at a fair result. A settlement figure is developed some place between the amount contended for by each party to the litigation.

Usually the jury verdict approach will be used only where:

- There is clear evidence of entitlement;
- Losses cannot be determined with reasonable accuracy;
- Original estimate was proven to be reasonable; and
- There is no other way of determining entitlement.

Not infrequently, BCAs will grant a percentage of the "total cost" claim submitted by the contractor. In doing so, the board rejects the total cost approach, usually as unsubstantiated, while at the same time recognizing that the contractor has sustained some injury.

Direct Costs

Any cost that can be identified specifically with a particular final cost objective.

Labor: Generally refers to labor which is directly associated with the construction project.

When pricing labor as an element, factors such as learning curves, loss of efficiency, labor escalation, wage rates, and miscellaneous direct cost of labor, are included. An acceptable claim for labor might consist of:

- The increase in labor rates paid because scheduled work was performed in another period; and/or
- Additional hours were expended because of the delay.

Additional labor hours expended, however, are frequently commingled with normal labor hours and you may find it difficult to distinguish.

Sometimes contractors will file for loss of efficiency (LOE), or loss of learning (LOL) resulting from a delay.

Example 1: A construction contractor may have originally planned to perform work during the good weather season, but as a result of the delay, had to build during poor weather. The additional effort resulting from the adverse weather might be allowable, assuming entitlement is due.

Example 2: An extended delay was experienced on a project resulting in a change in key personnel working on the project. Because of the personnel change, the contractor alleges that a learning period for retraining was necessary, thereby slowing the work effort and creating a cost burden because of the delay.

A claim for LOL is highly subjective, requiring evaluation by an expert in such matters.

Materials: Cost of materials used in the project.

Equipment: Furnished for use under the contract and either owned or controlled by the contractor or a subcontractor at any tier, or obtained from a commercial rental source.

FAR 31.105(d)(2)

In light of widely varying factors surrounding construction, it is a good idea to enter into an advance agreement with the contractor regarding equipment usage. (Advance agreements for other items such as home

FAR 31.105(d)(1)

office overhead, any partner's compensation involved, and the employment of consultants during the life of the project is also recommended.)

In determining allowable equipment costs, you must take into consideration the following factors:

- Ownership of the equipment.
- Rental of equipment from an independent equipment lessor.
- Location of the construction project - remote site?
- Nature of the project - specialized equipment needed?
- Duration of the project - did it affect rental rates?
- Size.

In estimating equipment costs, develop a list of equipment which will be used on the job, noting:

- capacity of the equipment to be used, and
- any remobilization and labor costs

which may be affected by the delay.

If actual cost data on the listed equipment is not available, you may specify the use of a schedule of predetermined rates, consisting of averages. Three widely accepted predetermined rate averages for equipment are published by:

1. Associated General Contractor's of America, Inc.
2. Contractor's Equipment Ownership Expense Schedule.
3. Corps of Engineers' Construction Equipment Ownership and Operating Expense Schedule.

☞ **NOTE:** If predetermined rates are used, it is important that you determine what is included in these rates in order to preclude duplication in either direct or indirect costs.

Equipment ownership expenses consist of seven categories. (See Exhibit 7-12.) You must analyze these expenses carefully to ① preclude a duplication of costs that may already be covered in the contractor's home office overhead and ② identify allowable costs. (See Exhibit 7-13.)

EQUIPMENT OWNERSHIP EXPENSES

1. Depreciation.
2. Insurance.
3. Taxes.
4. Storage and Incidentals.
5. Major Repairs and Overhauls.
6. Operating and Minor Maintenance.
7. Mobilization. (Only expense not a fixed cost.)

Exhibit 7-12

ALLOWABLE EQUIPMENT COSTS ASSOCIATED WITH DELAYS

Rental of Equipment

Costs allowed if reasonable. You must be very careful not to accept standard rental schedules because they include overhead and profit in addition to the ownership expense. A number of standard rental schedules are available. The most widely used one is the AED, which is also known as the "Green Book". The only profit to be calculated is the overall profit. If you allow this to go unchallenged it is like paying an additional mark up.

Idle Construction Equipment

Idle Equipment during a period of a Government caused delay is an allowable cost, at up to 50% of the equipment ownership expense rate. The percentage is a common method of approximating the effect of the equipment sitting idle rather than being used. It is presumed to compensate for the fact that no wear and tear is suffered during the idle period.

Equipment Loss of Efficiency

You may allow the contractor to claim compensation for equipment loss of efficiency cause by a Government delay or in acceleration if the equipment is rented on an hourly basis, and if the operator-engineer has experienced a loss of efficiency.

Depreciation Expense

Depreciation of the contractor's equipment is the systematic allocation of the original cost of the equipment, minus the salvage value over the useful life of the equipment. You must verify the actual cost the contractor paid for the equipment. The useful life is the number of years the equipment should, with proper maintenance, remain suitable for its intended purpose. Salvage value is the amount the contractor can expect to sell the equipment for at the end of its useful life.

You can estimate depreciation several ways, including the Straight Line Method, Double Declining Balance, Sum-of -the-year's Digits, and the Sinking Fund Method. Just be careful that no depreciation or use charge is allowed on contractor's assets that have already been fully depreciated. However, you may consider such things as increased maintenance charges or decreased efficiency resulting from age.

Insurance

Most contractors insure their own and rented equipment with commercial insurance companies. The actual cost is allowable.

Taxes

Equipment taxes include personal property taxes on the assessed value of the equipment, including licenses fees.

Storage and Incidentals

Equipment yard and associated expenses are allowed. If the equipment is used on a project sporadically and cannot be used in between times on other work.

Major Repairs and Overhaul Expense

Includes overhauls, painting, and maintenance which is generally performed at the contractor's yard. The method to spread out the cost of major repairs should be consistent with the method used for depreciation.

Operating and Minor Maintenance

Includes fuel, lubricating oil, tires, wages, etc. These are costs directly allocable to the project when in use. Estimating guides are used to establish hourly wages for labor. If equipment is rented, the rental fee normally includes an operator. This is something that you should verify on all rental equipment rates.

Exhibit 7-13

Since all the costs except mobilization are fixed costs, you can determine an allowable hourly rate by taking the total yearly cost for the equipment and dividing it by the total projected use,(usually 2,080 hours) to come up with an average hourly rate.

Indirect Costs

General costs necessary to the conduct of the contractor's business that cannot be charged as direct costs to any one project.

Indirect costs, which can be related to increased direct costs associated with a delay, are

- allowable and
- charged to the work by pooling in appropriate groupings and then allocating them among the contractor's other contracts.

Examples of indirect costs are illustrated in Exhibit 7-14.

Overhead

There are several methods for determining a contractor's field and home office overhead costs. There is not any one correct method of calculation. Agency policy may show preference for one particular method over another.

For purposes of discussion, <u>four methods of calculating overhead</u> have been selected as being representative of the various types, showing how calculations on the same situation will vary with the method chosen for calculations:

- "Normal" method.
- "Alternate" method.
- Fixed and Variable Cost method.
- Daily Rate method.

Appendix B provides detailed descriptions of each of the methods.

It is important that you apply only one chosen method consistently throughout the life of the contract. Do not allow the contractor to indiscriminately use one method for one situation and another on a different situation.

The purpose of reviewing and establishing overhead rates is to

- establish a fair and reasonable rate for field overhead and home office overhead, and
- identify and quantify every item included in the contractor's overhead pool.

Exhibit 7-15 lists typical elements that make up overhead, indicating allowability for each.

OVERHEAD COSTS ASSOCIATED WITH DELAYS

Overhead: This can be viewed as one such indirect cost pool or grouping into which contractors place a majority of the company's "G & A" type costs.

Home Office Overhead: (Also known as G&A)

Refers to the cost pool in which costs are generated by the running of the business. These costs, which include rent, clerical salaries and utilities, are treated as indirect costs for the purpose of pricing claims on delays. They are general and administrative expenses, consisting of indirect costs needed to conduct the business as a whole.

Field Office Overhead: Refers to the pool of indirect costs which are associated with maintenance of an on-site office. Unlike a manufacturer, a construction contractor's workplace is wherever the construction project happens to be. It very often consists of a trailer which can be moved from place to place, or a temporary type structure which can be mounted and trailered. These costs commonly include rent, utility charges, telephone, etc. The cost of maintaining a job office at the project site can, and should, be charged in full to that project; it is therefore, properly charged as a **job overhead expense. Job overhead** differs from **direct cost** in that **job overhead costs** are not allocable to a single work item, but to several work items within a single project.

Unabsorbed Overhead: Unabsorbed overhead is a term used to identify an element of cost normally claimed by contractors in delay claims. The term is, in reality, a misnomer, since all overhead costs are allocated to, and absorbed by contracts which are in process. Nevertheless, it has become generally accepted by contractors and by the boards of contract appeals.

Unabsorbed Home Office Overhead:

The amount of indirect expense actually incurred that would have been allocated to the contract had the delay not occurred and which is not recovered revenue from any other work. Note that a delay **does not** increase a contractor's fixed indirect costs. What it does is lower the contract allocation base, or reduce it to zero if the contract work has actually stopped, while the indirect home office overhead costs continue to mount. If other work cannot be substituted for the contract work which is not performed during the delay period, then the contractor experiences unabsorbed overhead.

Extended Overhead: Extended overhead refers to the additional overhead necessary to be absorbed by a particular contract as a result of an extension of time of the period of performance. It has been described as a concept unique to construction contracting. It has as its premise the fact that extending the performance period will increase home office overhead costs. You should allow, or find merit to a claim for extended home office overhead during a period of delay only if the particular circumstances of the delay prevented the contractor from taking on other work. (This element can be somewhat agency specific.)

NOTE: Contractor cannot claim <u>both</u> Unabsorbed Home Office Overhead and Extended Overhead.

Exhibit 7-14

FIELD OFFICE AND HOME OFFICE OVERHEAD ALLOWABLE COSTS

	ALLOWABLE	NOT ALLOWABLE
Field Office Overhead		
FAR 31.105(d)(3)	Field Superintendent.	Direct Costs.
	Timekeeper/Clerical.	Home Office OH.
	CQC costs**	
	Site cleanup.	
	Vehicle for Superintendent.	
	Equipment for material handling.	
	Field Office (Including utilities & maintenance).	
	Janitorial.	
	Office Supplies.	
	Payroll Taxes on Field OH.	
	Scheduling/ Updates.	
	Builders risk/general liability insurance	
	Small tools.	
Home Office Overhead		
FAR 31.105(d)(4)	Office Salaries.*	Duplication of Field OH.
	Admin/Clerk Salaries.	Contributions.
	Office Rent.	Entertainment.
	Utilities.	Bad Debts.
	Office Equipment.	Advertising for Business.
	Payroll Taxes.	Legal Fees on Claim.
	Travel.	Depreciation.
	Purchasing.	Leases on ADPE
	Expediting.	Contingencies.
	Engineering Services.	Fines and Penalties.
	Insurance.*	Insurance.
	Labor Relations.	Interest.
	Advertising for People, Jobs	Professional Fees (claims)
	Bidding Costs.*	Legislative Lobbying
	Civil Defense.	Losses on Other Contracts.
	Depreciation.*	Organization Costs.
	Employee Morale.	Taxes.*
	Normal Maint.	Public Relations.
	Leased ADPE.*	
	Economic Planning Costs	
	Consulting Fees.*	
	Professional and Consultant Services.*	
	Other Business Costs.*	

* See FAR 31 For Exceptions.

**CQC Costs are classified as direct costs. Some contractors, however may consider CQC costs to be part of their indirect field overhead.

Exhibit 7-15

Unabsorbed Overhead

Unabsorbed overhead is the amount of indirect expense actually incurred

- that would have been allocated to the contract had the delay not occurred and
- which is not recovered in revenue from any other work.

In order for the contractor to recover allowable, allocable unabsorbed or extended home office overhead, a contractor must prove:

- Government caused the delay, either by its action or inaction.
- Delay was not concurrent with a contractor-caused delay or a delay covered by the Default clause, i.e. weather, strike, etc.
- Contractor was damaged by the delay: other unrelated work was burdened with an overhead rate greater than that which would have applied (but for the delay) and the additional overhead costs could not be absorbed by other additional work.

Thus unabsorbed or extended home office overhead would generally be applicable to suspensions of work and delay claims, but not to small time extensions.

Once it has been clearly established that the delay was solely caused by the Government, the contractor must

- provide all evidence and documentation of unabsorbed overhead home office damages, and
- show inability to obtain additional work which would have absorbed the home office overhead during the delay period. For example:
    - Contractor is at maximum bonding capacity.
    - Contractor is at maximum financial capacity.
    - Government held the contractor on the job by insisting that work “will begin soon”.
    - Contractor's staffing or equipment is peculiar to the job at hand and cannot be redeployed easily.

This latter issue is difficult to disprove, and if you are going to deny overhead costs, you may have to base your argument on subjective factors, such as:

- Size and capabilities of the contractor;
- Size and degree of completion of the job;
- Amount of notice and certainty as to the delay period;
- Demobilization/mobilization expenses;
- Bidding and submittal demands of starting other work; and
- Geographic constraints.

Exhibit 7-16 gives the steps to follow to determine actual unabsorbed overhead.

STEPS IN DETERMINING UNABSORBED OVERHEAD

① Estimate the amount by which the Government caused delay reduced the distribution base.

(The distribution base is determined by dividing the indirect costs into cost pools, selecting a cost "base" for distributing the indirect costs to the appropriate cost objective, calculating an indirect expense rate, and applying the rate to the allocation base associated with a particular contract, arriving at the indirect cost allocable to that particular contract.)

② Estimate the amount by which other events reduced the distribution base.

③ Add the reductions to the actual distribution base for the period to obtain the contractor's adjusted distribution base.

√ Divide fixed home office expense for the accounting period by the adjusted distribution base to obtain the Home Office Overhead rate.

⑤ Multiply the Home Office Overhead rate by the reduction in the distribution base caused by the Government delay to obtain the amount of unabsorbed overhead due a contractor.

NOTE: Taken from Doctoral thesis by David G. Anderson, Certified Public Accountant, George Washington University, May 1988, under direction of John Cibinic, Jr., Professor of Law. Thesis title: "Recovery of Indirect Costs in the Pricing of Equitable Adjustments and Terminations for Convenience."

Exhibit 7-16

In analyzing a contractor's proposal or a claim for unabsorbed home office overhead, you need to distinguish between compensation for

added work which is pursuant to the Changes clause or Differing Site Conditions clause,

and the compensation for

Suspension of Work and delay claims.

Under the Changes or Differing Site Conditions clause, you will compensate the contractor for **all effects of the change, including any delay expense,** providing that the effect was necessary, reasonable, and foreseeable as a result of the change.

Calculating unabsorbed overhead costs does cause controversy which has resulted in the development of several methodologies, as depicted in Exhibit 7-17. In addition, you may simply examine each element of overhead cost claimed and determine if it is allowable, applicable, and reasonable, utilizing audit services as necessary.

WELL KNOWN METHODS FOR CALCULATING UNABSORBED OVERHEAD	
Berley Method (Berley Industries Inc.)	Presumption that a delay automatically increases overhead.
Manshul Method (Manshul Construction Corp.)	Uses alternative method of calculating overhead by estimating a percentage markup for profit and overhead, divided equally.
Eichleay Method	Method is based on assumptions for unabsorbed overhead and calculated by a specific formula.

Exhibit 7-17

Keep in mind that it is not the intent of the Government to select the method for calculating unabsorbed overhead based on the "cheapest way" concept, but rather the method that offers a fair and reasonable distribution of costs. If you are not satisfied with the contractor's method of calculation, there are several ways in which you might demonstrate to the contractor that:

- Assumptions inherent in the formula are not present in the current situation, pointing out the effect that this has on the computation.
- Recovery of the proposed amount would result in an unrealistically low remaining overhead rate to be applied to the contractor's other work.
- The amount claimed for unabsorbed overhead is actually greater than total overhead costs that would have been allocated to the contract absent any delay.
- The formula is inappropriate since the contractor replaced the delayed work in total, or in part, with other work, thus mitigating the effect of the delay.

Eichleay Method

By far the <u>most controversial method</u> for calculating unabsorbed overhead is the Eichleay formula which was developed over 25 years ago. For many years, it enjoyed almost total acceptance by the boards as being the accepted method of computation for determining unabsorbed overhead.

Some contractors still favor the Eichleay formula for the following reasons:

1. It is simple to use;
2. Its mechanical application frees a contractor from having to prove actual unabsorbed overhead; and
3. It generally provides a higher recovery rate than most other formulas.

In recent years, there has been a growing awareness that the formula does not accurately measure actual unabsorbed overhead. However, despite its shortcomings, it has enjoyed a high measure of success and acceptance by the such forums as the Armed Services BCA.

Eichleay method is based upon a number of assumptions, the correctness of which determines the formula's accuracy and usefulness:

- A proportional relationship exists between contract billings and fixed costs;
- Indirect cost pool includes only fixed costs;
- Contractor does not perform any substituted work of value during the delay period;
- Contractor was otherwise working at full capacity during the entire period of contract performance;
- Effect of a delay on a contractor is the same, regardless of when the delay occurs; and
- Overhead rate, theoretically included in the contractor's original price, can be derived by multiplying a daily rate by the number of performance days exclusive of delay.

There are four areas to address before approving use of the Eichleay method:

1. Possible duplication of direct costs.

Duplications can occur if the contractor lists the same expense as both a direct field cost and as a home office cost. (An example might be the salary of a superintendent.)

2. Elimination of unallowable costs.

Unallowable costs must be deleted from the overhead pool, during the period the delay occurred, before the overhead allocable to the contract can be determined.

3. Consideration of additive modifications.

If there were any modifications issued during the period of delay,

be sure that these are taken into account, since they normally include home office overhead as a price element. Application of the Eichleay formula may result in a duplication in this area. Thus, be sure to subtract from the unabsorbed overhead computation any home office overhead for added work which is performed during the delay.

4. Actual period of delay.

The proper period for purposes of computing unabsorbed home office overhead for a suspension of work is the number of days between demobilization and the resumption of work, and not the number of days by which the contract performance period is extended.

7.4 Process Delay Claim

In pursuing a claim for extra time or more money because of a delay, the contractor has two burdens to meet:

1. Establish the right under the contract to the entitlement; and,
2. Establish the amount of time or dollars to which there is entitlement..

Contractor

Submits proposal documenting

- that the delay was caused by the Government,
- the length of the delay, absent any concurrent delays, and
- that the disruptions actually increased its costs.

Government

Forms position based upon all of the evidence pertaining to the delay:

- Independent Government estimate is developed.
- Pre-Negotiation Memorandum is prepared.
- Audit is obtained, if required.

Discussions/ and or negotiations are held:

<u>If the parties reach an agreement</u>, a modification to the contract is issued, and a "Release of Claims Statement" (See Chapter 9.) is signed by the contractor.

<u>If the parties cannot reach an agreement</u>, a final decision will be issued by the contracting officer, as the first step in the contractor's pursuit of a claim.

Documentation

Often the responsibility for a delay is determined after a project is completed, and with the passage of time, key employees are no longer available. Memories fade quickly and records are misplaced. Many of the problems associated with time calculations could be prevented if the

cause of the delay were immediately documented at the time it was first recognized. However, those responsible for documenting events as they occur fail to do so because of various reasons, such as:

- Delay did not surface until later (Impact).
- Oversight.
- Inadequate tracking and monitoring system in place.
- Lack of either a CPM or Bar Chart schedule.
- "Failure to see the forest because of the trees".
- "I will take care of that tomorrow" syndrome.
- "Didn't think it as important".

If you are faced with the situation just described, Exhibit 7-18 lists some sources which may be tapped for information concerning the claim.

SOURCES OF INFORMATION ON DELAY CLAIMS

SOURCE	DATA OBTAINABLE
Employees	Government employees are a primary source of information concerning contract work and any delays incurred. Key employees may have a recollection of events during the period to piece together the cause and length of the delay.
Schedules	As a practical matter, it will be virtually impossible to present any meaningful analysis of a contract modification and the length of time it delayed the project without the use of a schedule of some type, whether it be a sophisticated CPM, a Bar Chart or Graph. The importance of reviewing any and all schedules prepared before or during the project is essential. The initial schedule will often contain significant information for evaluation of a delay, including assumptions by both sides at the start of the project.
Minutes of Meetings	Minutes of meetings can be used to trace the complete history of a project and identify when a delay was first mentioned or discovered. Minutes may also reflect the immediate action taken in response to the situation.
Photographs	Photographs can be used to demonstrate the progress on one part of the work as compared to another and establish the degree of completion at any point in time.
Daily Logs	Daily events may provide insight in determining the extent of delay through pinpointing the time an event started or stopped. They may also contain information about the weather, number of employees at the site, areas of work, completion of work, equipment being used, etc.
Payroll Records	Remember that the contractor must certify that the payroll submitted is accurate. These records are carefully prepared and well documented. Information as to the starting point of extra work, or a sudden drop in the payroll could be a clue.
Inspectors Reports	Inspection reports may establish the degree of completion of a particular item at a given point.

Exhibit 7-18

Time is difficult to analyze as no one has all of the information to exactly reconstruct, after the fact, a scenario of events as they actually happened. However, you must make a diligent effort to capture on paper as much of the details of the events as you possibly can, as they are happening.

In the event of a later dispute, or even the processing of a simple clarification, the timely written record is by far the most valid resource that you can possess to draw upon in establishing facts at a later date. Exhibit 7-19 lists good contract administration habits to develop for documenting the record with reference to delays.

RECORDING EVENTS FOR THE RECORD

Good record keeping includes:

- Daily review and prompt filing of the contractor's and inspector's daily reports.
- Conducting progress meetings which include developing thorough minutes and documentation.
- Sending a monthly schedule review letter whenever there is a contractor caused delay which results in falling behind in the schedule.
- An established program for taking progress and impact photos and videos.

Exhibit 7-19

The contracting officer's alertness to avoiding delays, if at all possible, is a mark of good contract management.

For instance, pressures placed on the contractor can lead to an acceleration. If you truly have an urgency to speed up the completion of the project, you should not be communicating it to the contractor unless you have already made a conscious decisions to pay for the acceleration.

BLOWING IN THE WIND

In identifying the issues facing John and Pete, one can see the mess that can result when delays are compounded and intermingled with each other. Unraveling them is difficult, sometimes next to impossible. The best solution to deal with the compounding effect is to react immediately to each and every delay which is occurring, preventing them from piling up. In this case, John and Pete were faced with decisions concerning a

- *poorly performing contractor,*
- *inclement weather,*
- *threat of accelerated performance,*
- *threat of extended overhead costs,*
- *failure to obtain complete access to the site, and*
- *submittal review delays.*

The contractor, however, has failed to establish causation and the duration of each delay. It is also obvious that the contractor failed to provide proof of the alleged delays. The contractor presented some documentation, but it was lacking in detail.

Unfortunately, it also appears that the file documentation on the Government's side is lacking in sufficiency. Pete and John were obviously lax in their record keeping, as they aren't sure themselves about a number of issues which the contractor is asserting.

The contractor may be "blowing smoke," but John and Pete decide to get their record keeping in shape, and stay on top of the projects entrusted to their care. Delay situations as well as potential ones require careful record keeping, alertness, and immediate action.

CHAPTER 8

MODIFICATIONS

SHOULD THE CONTRACT BE MODIFIED?

The CTC project contract has now been in the process of administration for about six months. One of the subcontractors is to provide additional power supply (by means of a buried power cable) to the CTC building on the job.

Unfortunately, during the past week several problems have arisen in the field:

- *The contract required the contractor to submit samples of electrical splice connectors to the contracting officer for approval. The contractor has failed to submit the samples, but work has progressed to the point where the connectors are now needed. This has stalled work for five days and the contractor expects another week's delay before receipt of the samples.*
- *Another delay occurred (also five days ago) when the contractor hit and broke a waterline that was not shown on the plans. The contractor was to fix the pipe, which is expected to take another three days.*
- *To top if off, last week a disagreement arose in the field between the inspector and the contractor on whether a portion of the cable was installed according to the specifications. The contractor expended $3000 to re-excavate the cable in question which revealed that the cable was, in fact, installed correctly.*

The letter the contractor sent requested "the money I'm due for the cable rework and the water line repair, plus interest," and included a request to "call off the inspector who's constantly on my back!"

Does the contractor have any legal or contractual basis for requesting compensation?

Does the Government have a right for denying any portion of the contractor's request?

COURSE LEARNING OBJECTIVES

At the completion of this chapter you will be able to:

Overall: Recognize, quantify, and administer construction contract modifications and advise the contracting officer on correct course of action.

Individual:

8.1 Identify the reason and source of change.

8.2 Categorize the types of contract modifications.
- Prepare an administrative modification.

8.3 Determine which clause authorizes the proposed modification.
- Apply terms and conditions of the clause to proposed modification.

8.4 Determine if a constructive change has occurred.
- Identify clause(s) which authorize(s) constructive changes.
- Describe the 20 day notice requirement.
- Determine if constructive acceleration has occurred.

8.5 Determine if a value engineering change proposal (VECP) is valid.
- Determine steps to follow after receipt of a valid VECP.
- Calculate the Government's and contractor's share of savings.

8.6 Determine equitable adjustments.
- Obtain independent Government estimate for equitable adjustment.
- Obtain and analyze the contractor's proposal.
- Develop the Government's position.
- Determine acceptability of proof of costs incurred.
- Conduct negotiations.

8.7 Document change orders.
- Unilateral modifications

INTRODUCTION TO MODIFICATIONS

Need for Flexibility

When a construction contract is executed by both parties, the contractor's performance obligation is spelled out in detail.

However, few construction projects are built without the Government making changes in the design or manner of construction after the contract has been executed:

- customer generated changes,
- discovery of newer or better materials to do the job,
- new construction techniques, or
- need to correct errors in the specification.

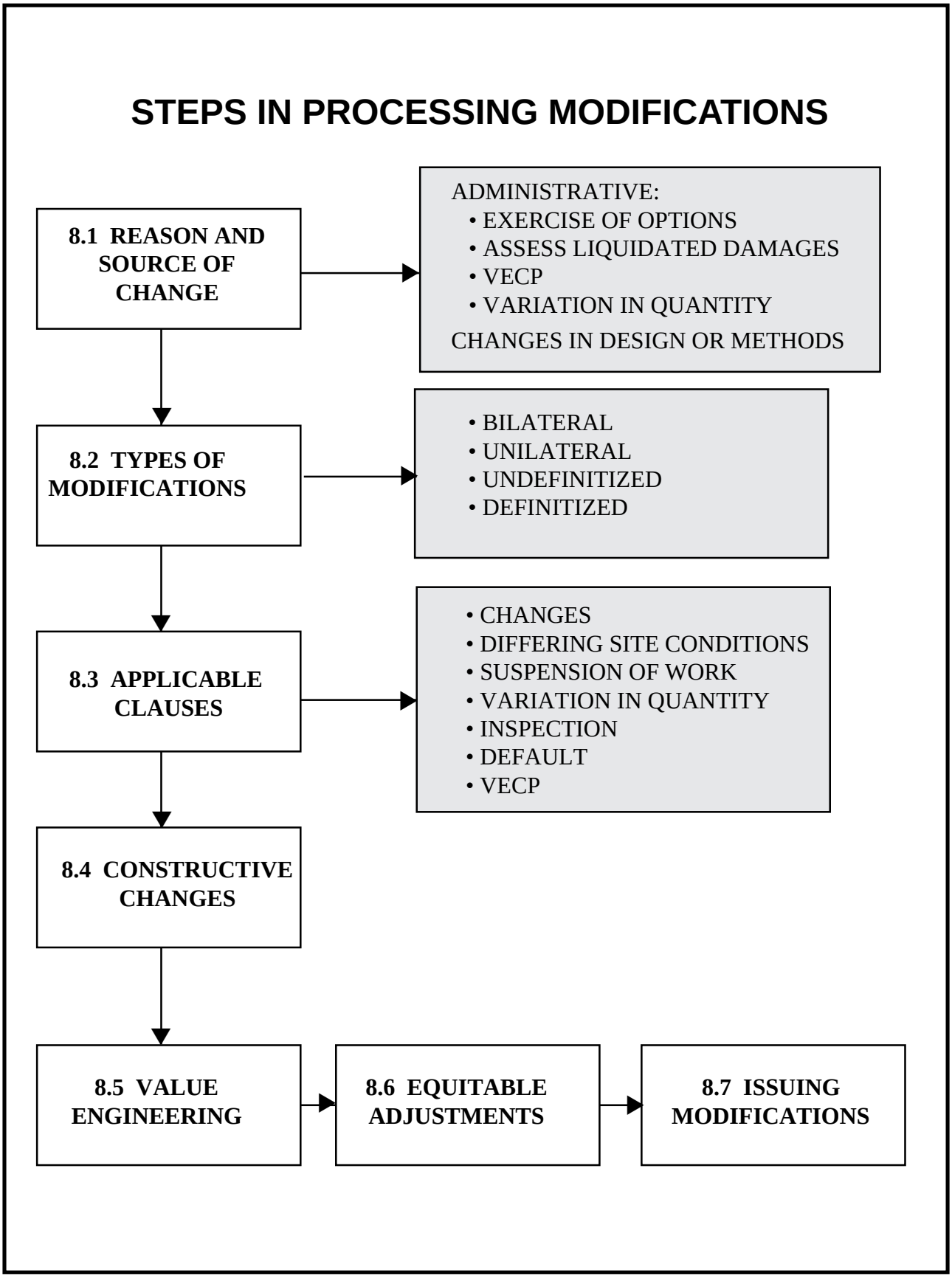
Flexibility is needed in order to provide the means to alter an otherwise rigid legal document. Modifications to the contract provide this flexibility.

Changes

Construction contracts include a Changes clause giving the Government the unilateral right to order changes in the contract work during the course of performance. In exchange, the contractor is promised a price adjustment if the change increases the cost or time of performance.

Steps in Performance

The steps in processing modifications to the contract are charted on the next page. Following the flowchart, each step is discussed in turn.


STEPS IN PROCESSING MODIFICATIONS
8.1 REASON AND SOURCE OF CHANGE
ADMINISTRATIVE:
• EXERCISE OF OPTIONS
• ASSESS LIQUIDATED DAMAGES
• VECP
• VARIATION IN QUANTITY
CHANGES IN DESIGN OR METHODS
8.2 TYPES OF MODIFICATIONS
• BILATERAL
• UNILATERAL
• UNDEFINITIZED
• DEFINITIZED
8.3 APPLICABLE CLAUSES
• CHANGES
• DIFFERING SITE CONDITIONS
• SUSPENSION OF WORK
• VARIATION IN QUANTITY
• INSPECTION
• DEFAULT
• VECP
8.4 CONSTRUCTIVE CHANGES
8.5 VALUE ENGINEERING
8.6 EQUITABLE ADJUSTMENTS
8.7 ISSUING MODIFICATIONS

STEPS IN PROCESSING MODIFICATIONS

8.1 Reason for and Source of Change

A failure to respond, in accordance with the terms of the contract as written, would hold the offending party in "breach" of the contract and subject to a variety of contractual and judicial actions. If one party makes such a change in the contract, this should constitute a failure to perform as written. Contractors could argue that the Government's right to unilaterally require changes in the contract is a breach of the original, mutually agreed to contract.

Therefore, how can the terms of a contract be changed once it has been signed by both parties?

- The privilege to make some changes to the contract within the general scope of the work is a right that the government possesses based on the terms of the contract.
- Several contract clauses, particularly the CHANGES clause, expressly affirm that the Government has the right to make in-scope changes.

The necessity for a change order may come from either the contractor or the Government. Once the need is uncovered, you may want to confer with the contractor

- to obtain his/her ideas/recommendations prior to taking any action,
- to exchange information relating to the elements of the proposed change, thereby arriving at some advance understanding of its scope and effect, or
- to obtain input concerning a change, that you wish to make, which may be helpful in coordinating the necessary changes.

Most often in Government originated changes, the contractor is simply directed under the CHANGES clause to do the work .

Exhibit 8-1 illustrates some common reasons for contract modifications generated by a contracting office.

FAR 43.101

A modification is any written change in the terms of a contract, e.g.,

rate of delivery	contract period
price	quantity

whether accomplished by

1. unilateral action in accordance with contract clauses or
2. mutual action of the two parties to the contract.

CONTRACTING OFFICE GENERATED MODIFICATIONS	
Type	**Modification Driven By:**
• Administrative	Changes in the paying office or appropriation data.
• New developments	Improved knowledge or technological advances.
• Customer requested change	Using activity of the facility has changed needs.
• Lack of information	Information lacking at the time the solicitation was prepared is now available.
• Correction of errors	Errors or ambiguities discovered in the contract.
• Contractor initiated changes	Proposed changes that mean more efficient performance and improved quality.
• Equitable adjustments	Settlement of change.
• Terminations	Contract termination for default or convenience.
• Liquidated damages	Assessments due to late performance.
• Value engineering change proposal	Acceptance of a VECP.

Exhibit 8-1

Exhibit 8-2, on the other hand, illustrates common reasons for contract modifications generated by field actions.

Field Changes

Conditions sometimes develop during construction necessitating minor variations or "field changes" from contract plans and/or specifications; for example:

- correction of dimensional conflicts or
- minor relocations of manholes,

where documentation is necessary, but where the variations are so minor that the issuance of a change order would not be justified.

FIELD ACTIONS GENERATING MODIFICATIONS	
1. Performance Improvement	Elimination of situations that impair contract performance.
2. Urgency	To assure timely delivery, e.g. due to changes of needs.
3. Actions/problems from the field covered under specific contract clauses, i.e., • Differing Site Conditions FAR 52.236-2 • Defaults FAR 52.249-10 • Inspection of Construction FAR 52.246-12 • Suspension of Work FAR 52.212-12 • Changes FAR 52.243-4	
4. Changes orders	To correct minor deficiencies.

Exhibit 8-2

Field changes are made and documented only when ① there is no change in contract price or ② no time is involved. Agency procedures govern:

- How "field changes" are to be handled.
- Who has authority to change what.

You must exercise a great deal of caution in dealing with this type change, as what is considered "minor" is not always apparent at the time; and a decision to consider a field change as minor may come back to haunt you at a later date.

The broad latitude of decision authority is limited in executing contract modifications in accordance with:

- Statutory limits of authority,
- Laws/regulations as implemented through contract clauses,
- Contract scope, and
- Limitations on contracting officer authority.

☞ **NOTE:** Only contracting officers, acting within the scope of their authority, are empowered to execute contract modifications. The Government will not be bound by the unauthorized acts of its employees; as a result, only a limited number of employees are designated as contracting officers.

It is physically impossible for the contracting officer to administer all aspects of many contracts single-handedly. Therefore, a variety of support personnel (See Exhibit 4-7) are the contracting officer's eyes and ears, and their knowledge is treated for all intents and purposes as "the last word" by contractors. Contractors must rely on direction/guidance of Government field personnel, even though sometimes it may be to their own detriment if the field authority hasn't been granted.

If the contractor is led to believe a person has authority, the contractor may obtain relief, **for example:**

- When an official of the contracting agency is not the contracting officer, but has been sent by the contracting officer for the express purpose of giving guidance in connection with the contract, the contractor is justified in relying on the representations.
- Government representative, having authority from the contracting officer, gives an interpretation of the specification or the drawings to the contractor, but does not actually order a change.

Although it may apply in non-federal construction claims, the doctrine of apparent authority has no application in Government construction law. Unless the person who orders a contract modification has actual authority to do so, the Government will not be required to pay for the extra work that may be involved. The Claims Court has stated:

> ". . . . No officer or agent of the Government can act beyond the limits of his/her authority; and anyone who enters into an arrangement with the Government on the basis of purported commitments made by Government personnel takes the risk of having accurately ascertained that such personnel was actually authorized to make the particular commitments."

In many cases the contracting officer's knowledge of an order resulting in extra work is non-existent until receipt of the required notice by the contractor. This happens because the action or order was made by a representative of the contracting officer, without **formal** authority. In such cases, the contractor must show that the:

- representative had the authority to act for the contracting officer,
- interpretation was correct, and
- there was a constructive change order given.

Although a change may have been issued by someone without authority, if the unauthorized act is subsequently ratified by a person with authority, it serves as a formal change order. Knowledge of the "issued change" is the essential ingredient in the theory of ratification. Once a person in authority knows of the change, silence can be interpreted as ratification of the change.

Contractor's Delegated Authority

Express or implied authority may be delegated to the contractor's representative(s) by the contractor. If the construction firm is a large one, it may have a board of directors.

1. The authority to transact all of the ordinary business of the corporation within its charter powers is vested in that board.
2. Express delegation of authority is usually passed on by resolutions of the board of directors.
3. Contracting officers should request in writing, the names and positions of individuals with delegated authority, as well as their authority to bind the firm.

Small construction contractors are under greater risks because very often no such written delegations are made. Further complications may result in frequent changes of personnel in a small firm.

The SF 129, Solicitation Mailing List Application, (See exhibit 8-3) is a good place to begin checking authorities of contractor personnel.

☞ **NOTE:** While the Government, according to the principle of apparent authority, cannot be bound by unauthorized acts of Government personnel, the contractor can be bound by the apparent authority of a person claiming to act on behalf of the contractor.

8.2 Types of Modifications

The type of modification and the rights and responsibilities of the Government and the contractor vary greatly, depending on whether the modification is in-scope or out-of scope.

Scope

Generally, work performed falls within the general scope if it "can be regarded as fairly and reasonably within the contemplation of the parties when the contract was entered into." *

*Freund v U.S.(260 U.S. 60 (1922))

SOLICITATION MAILING LIST APPLICATION

1. TYPE OF APPLICATION ☐ INITIAL ☐ REVISION

2. DATE

FORM APPROVED OMB. NO. **9000-0002**

NOTE: Please complete all items on this form. Insert N/A in items not applicable. See reverse for instructions.

Public reporting burden for this collection of information is estimated to average .58 hours per response, including the time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information, including suggestions for reducing this burden, to the FAR Secretariat (VRS), Office of Federal Acquisition Policy, GSA, Washington, DC 20405; and to the Office of Management and Budget, Paperwork Reduction Project (9000-0002), Washington, DC 20503.

3. NAME AND ADDRESS OF FEDERAL AGENCY TO WHICH FORM IS SUBMITTED (Include ZIP code)

4. NAME AND ADDRESS OF APPLICANT (Include county and ZIP code)

5. TYPE OF ORGANIZATION (Check one)

☐ INDIVIDUAL ☐ NON-PROFIT ORGANIZATION

☐ PARTNERSHIP ☐ CORPORATION, INCORPORATED UNDER THE LAWS OF THE STATE OF:

6. ADDRESS TO WHICH SOLICITATIONS ARE TO BE MAILED (If different than Item 4)

7. NAMES OF OFFICERS, OWNERS, OR PARTNERS

A. PRESIDENT	B. VICE PRESIDENT	C. SECRETARY
D. TREASURER	E. OWNERS OR PARTNERS	

8. AFFILIATES OF APPLICANT (Names, locations and nature of affiliation. See definition on reverse.)

9. PERSONS AUTHORIZED TO SIGN OFFERS AND CONTRACTS IN YOUR NAME (Indicate if agent)

NAME	OFFICIAL CAPACITY	TELE. NO. (Include area code)

10. IDENTIFY EQUIPMENT, SUPPLIES, AND/OR SERVICES ON WHICH YOU DESIRE TO MAKE AN OFFER (See attached Federal Agency's supplemental listing and instructions, if any)

11A. SIZE OF BUSINESS (See definitions on reverse)

☐ SMALL BUSINESS (If checked, complete Items 11B and 11C) ☐ OTHER THAN SMALL BUSINESS

11B. AVERAGE NUMBER OF EMPLOYEES (Including affiliates) FOR FOUR PRECEDING CALENDAR QUARTERS

11C. AVERAGE ANNUAL SALES OR RECEIPTS FOR PRECEDING THREE FISCAL YEARS

$

12. TYPE OF OWNERSHIP (See definitions on reverse) (Not applicable for other than small business)

☐ DISADVANTAGED BUSINESS ☐ WOMAN - OWNED BUSINESS

13. TYPE OF BUSINESS (See definitions on reverse)

☐ MANUFACTURER OR PRODUCER ☐ REGULAR DEALER (Type 1) ☐ CONSTRUCTION CONCERN ☐ SURPLUS DEALER

☐ SERVICE ESTABLISHMENT ☐ REGULAR DEALER (Type 2) ☐ RESEARCH AND DEVELOPMENT

14. DUNS NO. (If available)

15. HOW LONG IN PRESENT BUSINESS?

16. FLOOR SPACE (Square feet)

A. MANUFACTURING	B. WAREHOUSE

17. NET WORTH

A. DATE	B. AMOUNT
	$

18. SECURITY CLEARANCE (If applicable, check highest clearance authorized)

FOR	TOP SECRET	SECRET	CONFIDENTIAL
A. KEY PERSONNEL			
B. PLANT ONLY			

C. NAMES OF AGENCIES WHICH GRANTED SECURITY CLEARANCES (Include dates)

CERTIFICATION - I certify that information supplied herein **(Include all pages attached)** is correct and that neither the applicant nor any person (or concern) in any connection with the applicant as a principal or officer, so far as is known, is now debarred or otherwise declared ineligible by any agency of the Federal Government form making offers for furnishing materials, supplies, or services to the Government or any agency thereof.

19. NAME AND TITLE OF PERSON AUTHORIZED TO SIGN (Type or print)	20. SIGNATURE	21. DATE SIGNED

NSN 7540-01-152-8086
Previous edition usable
Facsimile

STANDARD FORM 129 (REV. 6-90)
Prescribed by GSA

Exhibit 8-3

WORKING DEFINITION FOR SCOPE OF MODIFICATION

A Modification Is. . .	**When. . .**
In-Scope	Additional work or changes, which fall under the general intent of the contract and within the physical limits of the construction site, can be actively or inactively directed by the contracting officer within the bounds of the contract authority. The contractor must perform the changes or breach the contract. In exchange for the right of the Government to effect in-scope changes, the contract guarantees the contractor the right to an equitable adjustment.
Out-of-Scope	Additional work, which ① extends outside the proper limits of the site, or ② is of a different nature than that covered by the contract, or ③ is work greatly increasing the value of the project, is considered beyond the scope of the contract. This work is beyond the routine authority of the contracting officer to order, or the obligation of the contractor to perform. Such work can only be procured by a second contract or supplemental agreement to which both parties voluntarily agree.

Exhibit 8-4

Exhibit 8-4 expands upon the definitions.

After you have made a determination concerning the scope of the modification, you now have to decide on the "type" of modification which is appropriate.

Exhibit 8-5 provides definitions for the three types; and Exhibit 8-6 gives a graphic illustration.

Bilateral

A bilateral modification is the "preferred" way to issue a change order because it allows the Government to establish a fixed cost for the change, rather than leave it open ended: the contractor and contracting officer agree on the price and time adjustment that should be made as a result of the change.

TYPES OF MODIFICATIONS

Type	Reference	Characteristics
Supplemental Agreement	FAR 43.101	A contract modification that is accomplished by the mutual action of the parties.
Bilateral Modification	FAR 43.103(a)	A contract modification (supplemental agreement) that: • Is signed by the contractor and the Contracting Officer; • Is used to consummate a negotiated equitable adjustment settlement resulting from a change order; • Definitizes letter contracts; and • Reflects other agreements of the parties modifying the terms of the contract."
Unilateral Modification	FAR 43.103(b)	A contract modification that is signed only by the Contracting Officer. Unilateral modifications are used, for example, to: • Make administrative changes; • Issue change orders; • Make changes authorized by clauses other than the Changes clause (e.g., Property clause, Options clause, Suspension of Work clause, etc;) and • Issue termination notices.

Exhibit 8-5

What if you are able to reach an agreement on all elements except impact? In that instance, the bilateral modification should make it clear that the negotiated equitable adjustment does not include certain specified aspects of the changed work, and that these elements will be priced at a later date when more information is obtainable.

Most agencies augment the language to be included in change orders.

For example, GSA uses a change order form that issues the change at a ceiling price based on the contractor's proposal. This form obligates the contractor to proceed with the work as changed

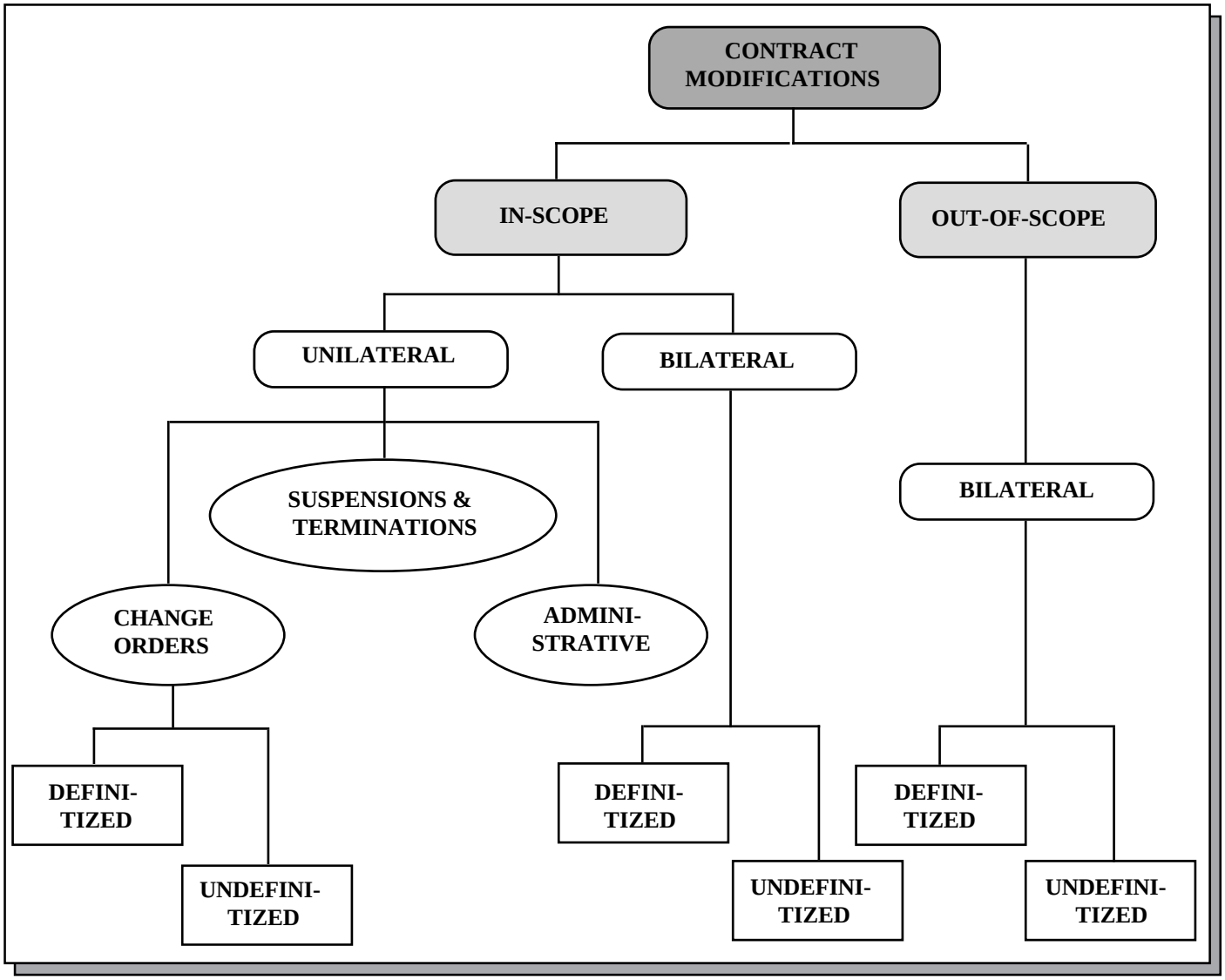


Exhibit 8-6

and to limit the amount of the future equitable adjustment by placing a ceiling on it. If the contractor believes the amount specified is insufficient, there exists a duty to call it to the attention of the contracting officer immediately.

Other situations for modifying language used in Change Orders are:

1. Unilateral modification with "not to exceed" price is based on the Government estimate. Contractor must go on record early to disagree with ceiling or "Not to Exceed" price to protect itself up-front; however, in the meantime the contractor still has the duty to perform.

2. Equitable adjustment does not include all costs; usually bilateral modification stating it "includes all costs except ____."

3. Contractor must follow specific directions regarding the contractor's payment for the work.

4. A schedule is established to definitize a unilateral modification, resulting in the issuance of a bilateral modification.

☞ **NOTE:** Once both parties have signed the modification, it is considered to have the same force and effect as the terms contained in the original contract. Also, if a contractor accepts the change and performs the work, it cannot subsequently claim that the change was beyond the general scope of the contract for the purpose of making a "breach-of-contract" claim against the Government.

Unilateral Change

If the parties cannot reach an agreement, or if time constraints do not allow for negotiation, the following applies:

- On behalf of the contracting officer, you may issue a unilateral modification setting forth price and/or time adjustments as deemed reasonable;

- The burden is then on the contractor to either accept or to appeal the unilaterally established price and/or time adjustment. In the meantime, the contractor must proceed with the work under the modification.

- The Changes clause makes it possible to order unilateral changes in the drawings and/or specification and to price out these changes bilaterally, at a later date [unless an agreement cannot be reached resulting in another unilateral decision].

Definitization

The final major classification of contract modifications concerns whether they are "definitized" or "undefinitized".

A **definitized modification** has been described as:

> One in which all adjustments regarding cost, time, scope (or statement of work) of the changed work, and other considerations have been decided. No further modification to the contract regarding this change will be required.

An **undefinitized modification** is:

> One in which all the terms <u>have</u> <u>not</u> been agreed upon. Undefinitized modifications are issued when it is necessary for the contractor to perform some work, but the equitable adjustment cannot be determined at that time.

FAR 43.102(b)

Modifications, including changes that could be issued unilaterally, shall be priced before execution if this can be done without adversely affecting the interest of the Government.

There are, however, risks to the forward pricing or definitization of the change order modification.

Contractor risks:

- May not have time to fully evaluate impact of the change.
- May have a tendency to underestimate costs due to insufficient time to assess impact.

Government risks:

- Contractor may include contingencies.
- If the contingency is too large or the feared events do not occur, the Government will have paid too much.

FAR 43.105

Funds must be available before any modification is executed unless the AVAILABILITY OF FUNDS or the LIMITATION OF FUNDS clause is included in the modification.

Exhibit 8-7 outlines disadvantages of an undefinitized modification.

DISADVANTAGES OF AN UNDEFINITIZED MODIFICATION

- An undefinitized modification shifts the risk from the contractor to the Government.
- The contractor will not be motivated to control costs.
- If the Government disagrees with the costs presented by the contractor, the burden of proof is on the Government to show that the costs are “unreasonable”.
- The modification may tie up more contingency funds than necessary (the excess of which could be used elsewhere).
- Since the modification specifies a “not to exceed” amount, the Government may be put in an awkward position for negotiation.
- Both the contracting officer and the contractor have a legal basis for asserting a claim for an adjustment.

Exhibit 8-7

Some agencies utilize a "Two Part" change order procedure as outlined in Exhibit 8-8.

TWO PART CHANGE ORDER

1. Approved by some agencies for use in cases where the changes involve a substantial sum and considerable time will be required to determine the
   - equitable adjustment or
   - exact extent of the change.
2. It is determined that it would be inequitable to require the contractor to finance the change until the equitable adjustment is finally determined.
3. The first part of the change order provides an amount for payment purposes only and expressly stipulates that such amount is tentative.
4. Final adjustment will be made in the second part of the change order.

Exhibit 8-8

Cardinal Change

The concept of a “cardinal" change has evolved from court decisions and refers to a change that is considered beyond the general scope of the contract. The basic test in determining if a cardinal change has occurred is whether:

- it was within the contemplation of both parties when they entered into the contract; and
- the job, as modified, is still the same basic job.

Actions considered cardinal changes are illustrated in Exhibit 8-9.

EXAMPLES OF CARDINAL CHANGES

- Doubling the volume of fill in an earth-moving contract.
- Adding an additional floor to a multi-floor building.
- Deleting 50% of dredging in a harbor maintenance contract.
- Adding a parking lot to a contract for a building.
- Adding a physics lab to an office building.
  - (Although elements distinct to an office building, such as, lobby, elevator, adequate lighting, parking area are considered within the scope.)

Exhibit 8-9

It is most often applied when

- design defects are encountered, and/or
- there are large changes (both additions and deletions) in the magnitude of the work.

Thus, even when the type of changed work does not differ materially from the type of work contemplated by both parties in the original contract, if the quantity varies significantly you may consider it to be a cardinal change. When a breach by the Government occurs as a result of a cardinal change, the contractor is entitled to an adjustment, as damages to the overall project costs were incurred as a result of the cardinal change.

There is no mechanical or mathematical formula for you to apply in determining what constitutes a cardinal change. However, the courts have allowed broad latitude to the contracting officer in these situations. Influential factors which the courts may consider are:

- Type of the original work;
- Time required; and
- Individual effort the contractor must put forth.

If there is a dispute concerning time or the number of changes made, the courts will usually take into consideration a number of factors in order to determine if the extensively modified contract can no longer be "considered what was originally contemplated by the parties". However, they have consistently held that the number of changes made has not been considered to be an issue.

8.3 Applicable Clauses

Performance requirements are provided in detail in the construction contract. However, few construction projects are finished without some type of change being necessary. To deal with these inevitable changes, specific clauses have evolved over the years which address the rights and obligations of the parties.

Changes

FAR 43.205(d)

The CHANGES clause (See Exhibit 8-10) is the vehicle by which changes may be made, and as such, is one of the most important clauses in the contract, encompassing not only formal changes in design, but also "constructive changes" such as:

- Acceleration.
- Differing site conditions.
- Defective plans and specifications.
- Excessively strict inspection.
- Impossibility of performance.

FAR 43.205(f)

[If it is likely changes will exceed $100,000, you may want to include a Change Order Accounting clause, as well, in your solicitation.]

The changes clause is a veritable "umbrella", which may entitle the

- Contractor to additional compensation, or
- Government to a credit when some aspect of contract performance is rendered unnecessary.

WHAT DOES THE CHANGES CLAUSE REALLY SAY?

FAR 52.243-4

Paragraph (a)
Establishes the authority of the Contracting Officer to make changes within the general scope of the work. The clause makes it clear, however, that the changes may relate to any aspect of the work to be performed under the contract. As you read the clause you can visualize illustrative categories for making changes that have been historically accommodated by the Changes clause. These may be changes to the:

- Drawings.
- Designs and specifications.
- Method and manner of performance.
- Provision of Government-furnished facilities, equipment, materials, services.
- Acceleration in performance.

Paragraph (b)
While the Contracting Officer is authorized to make changes in any aspect of the work itself, the clause does not authorize the contractor to alter any of the collateral aspects of contract performance, such as that covered by the Payment and "boilerplate" clauses. The intent is also to distinguish between directed changes and "constructive changes" under paragraph (b), since the latter is subject to special notice and cut-off requirements, and to classify authority to make directed changes.

"Any other written order or an oral order...by the Contracting Officer which causes any such change shall be treated as a change order under this clause." Any may include: directions, instructions, interpretation and determination.

It also states that in a constructive change situation, the contractor may include a claim statement with the notice of claim.

Paragraph (c)
This paragraph provides that no order, statement, or conduct of the Contracting Officer shall be treated as a change, except as specifically provided in the clause itself. Essentially, this means that unless a change takes place within the four corners of paragraphs (a) and (b), it cannot be adjusted under the Changes Clause.

With respect to constructive changes, only those provided for in paragraph (b) may be considered under the Changes Clause. This paragraph does not preclude the contractor from seeking administrative relief available under another clause contained in the contract.

Paragraph (d)
The equitable adjustment provision in paragraph (d) establishes a limit on the constructive changes under paragraph (b). Under this provision, a contractor who seeks relief in a constructive change situation not involving defective specifications cannot recover for any costs arising more than 20 days prior to the contractor furnishing a written notice as prescribed under paragraph (b). The 20-day limitation is not waivable, and costs may not be recovered contrary to this limitation. Whenever an issue arises over the failure to meet the 20 day notice requirement, you should obtain legal advice in order to avoid action that may be construed as a waiver of the requirement.

Paragraph (e)
This paragraph requires the contractor to submit a proposal (within 30 days of written notice) setting forth the general nature and monetary amount as an equitable adjustment as a result of the written change order which you have issued.

Paragraph (f)
Merely states that a claim for an equitable adjustment under the clause must be asserted prior to final payment.

Exhibit 8-10

The contracting officer may make changes outside the scope of the contract providing:

- Competition in Contracting Act is adhered to, and
- Change is made by mutual consent of both parties.

Under the Competition in Contracting Act, everyone must have an equal opportunity through the competitive bidding system to obtain Government contracts (See Exhibit 8-11).

If the proposed modification is within the scope of the basic contract, the work is a part of that contract. Therefore, it relates back to the competition obtained at that time.

If the proposed modification is outside the scope of the contract, the work is, in essence, a new procurement. You must solicit new bids for the modification unless there is an approved justification for negotiation on a sole-source basis.

When the scope determination is related to regulatory and/or statutory requirements of procurement law, the legal aspects may be overriding, and you should consult legal counsel.

COMPETITION CONSIDERATIONS

Supplemental agreements enlarging the scope of the work, or adding materially to the work to be done have been criticized as violating the requirements for securing competition by advertising. The apparent probability that additional work may be done more conveniently or even less expensively by the original contractor because of being engaged in the original work, or otherwise, is not controlling as to whether the work shall be publicized and competed. The fact that the original contractor can do the work at less expense than any other contractor is determined only by solicitation of competitive bids.

Examples of circumstances under which a supplemental agreement may be appropriate:

- The work to be accomplished is so interrelated with that being accomplished under the contract as to make utilization of a separate contract impracticable; or

- The site is so remote and the amount of work so small as to make the obtaining of bids from a contractor other than the one on the site impracticable.

Exhibit 8-11

Differing Site Conditions

FAR 36.502

Of all the risks involved in a fixed-price construction contract, the single greatest risk may be in unanticipated subsurface conditions:

- These conditions will disrupt schedules, and
- Throw cost estimates "out the window."

Therefore, to preclude contractors from including contingencies in their bid for self protection against such an event, the DIFFERING SITE CONDITIONS clause is included in the contract which provides for an equitable adjustment under any differing conditions. Exhibit 8-12 provides the text of the clause.

DIFFERING SITE CONDITIONS CLAUSE

FAR 52.236-2

a. "The contractor shall promptly, and before the conditions are disturbed, give a written notice to the Contracting Officer of (1) subsurface or latent physical conditions at the site which differ **materially** from those indicated in this contract, or (2) unknown physical conditions at the site, of an unusual nature, which differ materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in this contract.

b. The Contracting Officer shall investigate the site conditions promptly after receiving the notice. If the conditions do materially so differ and cause an increase or decrease in the Contractor's cost of, or the time required for performing any part of the work under this contract, whether or not changed as a result of the conditions, an equitable adjustment shall be made under this clause and the contract modified in writing accordingly.

c. No request by the contractor for an equitable adjustment to the contract under this clause shall be allowed, unless the Contractor has given the written notice required; provided, that the time prescribed in (a) above for giving written notice may be extended by the Contracting Officer.

d. No request by the contractor for an equitable adjustment to the contract for differing site conditions shall be allowed if made after final payment under this contract."

Exhibit 8-12

Paragraph (a) above refers to conditions differing **"materially"** from those that the contractor has been led to expect. This gives rise to the question of how different the conditions must be in order to be materially different:

- The determination of the degree of material variance is inherently subjective.

- The law considers something to be “material” if it affects the important interests of a party.
- Most judicial and administrative opinions dealing with differing site conditions, however, "duck" the difficult task of analyzing the material difference and simply make the conclusory statement that the difference was material.

From the admittedly small number of cases in which the issue is discussed by the BCAs, <u>three generalities can be concluded</u>:

1. If a quantifiable variation in excess of 30 percent can be shown, courts and boards will have little trouble finding this to be a material difference.
2. As the variation becomes smaller, it becomes increasingly important for the contractor to be able to point to precise, unqualified data in the contract documents.
3. If a contractor is forced to switch to a more costly method of performance, the force of the claim is strengthened.

The rights and obligations of the parties are based on those site conditions:

- Represented by the Government in the contract, e.g.,
  - Technical specifications
  - Drawings, and
- Those conditions unknown but ordinarily encountered and not inhibiting performance.

Unfortunately, <u>conditions represented (and those assumed) sometimes do not exist</u>. When such is discovered to be the case, the contractor may have based his bid upon a misrepresentation of facts. Since the contractor obviously has little incentive to make an issue of a differing condition that would lower the contract price, you must be alert to recognize this situation and take steps to negotiate an equitable adjustment of the contract on behalf of the Government.

☞ **NOTE:** The clause therefore works both ways, in that if the differing site condition is easier and less costly than anticipated, the Government may receive the benefits in both dollars and time.

The courts have classified differing site conditions into two general types (See Exhibit 8-13). The contractor’s obligation to provide “notice” is the same for either type.

TYPES OF DIFFERING SITE CONDITIONS	
Type I Category	**Type II Category**

The contractor is required to establish that a subsurface or latent physical condition was encountered that:
• Differed materially from what was indicated in the contract.
 	
"Indicated" means that the conditions were affirmatively expressed in the:
• Drawings; and or
• Specifications.
 	
"Expressed" conditions can give rise to "inferences" or "implications" that must be interpreted by reading the "contract as a whole".
	The contractor is required to establish that a subsurface or latent physical condition was encountered in which:
	• Conditions differ from what is normally encountered in the area.
	
	The contractor had no knowledge of them from any other source, and which would not reasonably be anticipated.
	
	No knowledge from any other source, such as:
	• A reasonable site inspection;
	• A study of the contract documents;
	• An intelligent interpretation grounded in sound construction experience, and which were reasonably not anticipated by:
	  • Customs of the trade.
	  • Common knowledge of the industry.
	  • Manufacturer's instructions and recommendations.
	  • Traditional assumptions ordinarily involved in bidding the particular type of work.

Note: "Subsurface" pertains to underground conditions while "latent" refers to conditions hidden or concealed from a reasonable site inspection. A category II does not have to be considered a geological peculiarity in order to be "unusual".	

Exhibit 8-13

Exhibit 8-14 illustrates examples of both Type I and Type II conditions which have been extracted from actual cases.

TYPE 1 AND TYPE II EXAMPLES	
Type I Condition	**Type II Condition**
<u>Subsurface:</u> A burrow pit designated in the contract was shown to be unsuitable for the work. Government furnished test borings that were inaccurate and did not indicate the existence of solid rock. Contract drawings indicating a disposal area of 22 acres, when the actual disposal area was only about 17 acres and the remaining area was under water. <u>Latent Conditions:</u> Failure to indicate the presence of water pockets beneath a built-up roof being repaired. Government plans indicated that removal of a moisture barrier from an existing building, including only one-third of the roof when, in fact, the entire roof had to be stripped. Inaccurate representations in a contract regarding moisture retention qualities of upper soil levels regarding drainage characteristics.	<u>Subsurface:</u> The discovery of timber piles beneath a concrete plaza. The inclusion of considerable debris, such as roots, stumps, and logs, hidden from sight under a heavy cover of soil with no contract information concerning its existence. Presence of excessive, large subsurface boulders not indicated by the contract. The existence of an underlying and undisclosed second layer of sidewalk beneath an existing concrete sidewalk that was to be removed. <u>Latent Conditions:</u> The presence of waste oil deposit not mentioned in the contract documents and not discoverable by a reasonable site inspection.

Exhibit 8-14

Suspension of Work

FAR 12.502

The SUSPENSION OF WORK clause gives the Government the right to suspend, delay, or interrupt a contractor's performance. Although it is worded in very general terms, the clause is limited in its application, since as a practical matter, you will find few situations in which you would recommend

- stopping the contractor's work, and
- paying the increased costs of doing so.

The clause is written in coordination with the Changes clause. It specifically states that if you can make an adjustment under the Changes clause or any other clause, do so, as the Suspension of Work Clause is the lowest on the priority scale. **For example:**

> if a delay expense is compensable under the Changes clause or Government-Furnished Property clause, consider processing a modification under those clauses, rather than the Suspension of Work clause.

The text of the Suspension of Work clause is contained in Exhibit 8-15.

SUSPENSION OF WORK CLAUSE

FAR 52.212-12

a. "The Contracting Officer may order the contractor, in writing, to suspend, delay, or interrupt all or any part of the work under this contract for the period of time that the Contracting Officer determines appropriate for the convenience of the Government.

b. If the performance of all or any part of the work is, for an unreasonable period of time, suspended, delayed, or interrupted (1) by an act of the Contracting Officer in the administration of this contract, or (2) by the Contracting Officer's failure to act within the time specified in this contract (or within the time if not specified), an adjustment shall be made for any increase in the cost of performance of this contract (excluding profit) necessarily caused by the unreasonable suspension, delay, or interruption and the contract modified in writing accordingly. However, no adjustment shall be made under this clause for any suspension, delay, or interruption to the extent that performance would have been so suspended, delayed, or interrupted by any other cause, including the fault or negligence of the Contractor or for which an equitable adjustment is provided for or excluded under any other term or condition of this contract.

c. A claim under this clause shall not be allowed (1) for any costs incurred more than 20 days before the contractor shall have notified the Contracting Officer in writing of the act or failure to act involved (but this requirement shall not apply as to a claim resulting from a suspension order), and (2) unless the claim, in an amount stated, is asserted in writing as soon as practicable after the termination of such suspension, delay, or interruption, but not later than the date of final payment under the contract."

Exhibit 8-15

Thus the clause has been applied to a variety of situations concerning delays, such as in:

- Making the site available to the contractor;
- Issuing a change or investigating a delay situation;
- Approval of shop drawings; or
- Approval of corrections to a defective specification.

A suspension of work usually results in the action or inaction of one of three parties. Exhibit 8-16 illustrates relief associated with each.

SUSPENSION OF WORK	
PARTY	**BENEFITS**
• The contractor.	Relief for the contractor may be significant, but no profit.
• A third party (considering nature as being a third party)	Not compensable. If any recovery is granted, it would only be an excusable delay under the Default Clause.
• The Government	"Buys time" to solve whatever problem caused the suspension.

Exhibit 8-16

Reasonable suspensions of work are normal occurrences in any productive activity. The Government is allowed a reasonable time to:

- make decisions
- respond to questions
- process submittals
- investigate progress and quality
- define interpretative matters
- clarify and revise designs

Thus delays for short periods of time -a few hours, or even several days- are likely to be considered reasonable and not compensable.

Delays are unreasonable when they:

- Result from the Government's violation of some obligation or duty (express or implied).
- Are undertaken by the Government for its own purpose and advantage in disregard of a foreseeable delay to the contractor.
- Are so long (regardless of the Government's fault) that the contractor cannot be expected to bear such risk or costs.

☞ **NOTE:** Even if you, or anyone with authority in administering the contract, have caused the delay, you cannot grant a price increase if the same delay or interruption, would have resulted from other causes whereby the Government is not responsible. This includes the contractor's own negligence or fault.

Variation in Estimated Quantity

FAR 12.402

Overruns and underruns of Government estimated quantities are frequently experienced by construction contractors. Because of the problem, the VARIATION IN ESTIMATED QUANTITY clause (See Exhibit 8-17) has evolved for use in construction contracts when the exact quantities cannot be determined in advance of the actual work. **For example:**

- determining the amount of dredging required, or
- determining the amount of gravel and sand needed.

The solicitation is structured

① to allow for a base bid for the work
② with unit prices provided separately on specific items
③ in which exact amounts are not known
√ but for which an estimated amount is provided in the SOW.

This relieves the contractor of much risk in inaccurate estimates and prevents contingencies from being added to the contractor's price when bidding the job. A modification for equitable adjustment is made to the contract "after the fact" when exact amounts become known.

VARIATION IN ESTIMATED QUANTITY CLAUSE

FAR 52.212-11

"If the quantity of a unit-priced item in this contract is an estimated quantity and the actual quantity of the unit-priced item varies more than 15 percent above or below the estimated quantity, an equitable adjustment in the contract price shall be made upon demand of either party. The equitable adjustment shall be based upon any increase or decrease in costs due solely to the variation above 115 percent or below 85 percent of the estimated quantity. If the quantity variation is such as to cause an increase in the time necessary for completion, the Contractor may request, in writing, an extension of time, to be received by the Contracting Officer within 10 days from the beginning of the delay, or within such further period as may be granted by the Contracting Officer before the date of final settlement of the contract. Upon the receipt of a written request for an extension, the Contracting Officer shall ascertain the facts and make an adjustment for extending the completion date as, in the judgement of the Contracting Officer, is justified."

Exhibit 8-17

Application of the Variation in Quantity clause to the contract will generally be straightforward and without dispute, provided:

- Accurate records are maintained on the actual quantity of materials used; and
- Both parties assert their rights within the time specified.

The clause makes provisions for either party to demand an equitable adjustment if the actual quantity of material varies outside the 15% limits. The 15% window is established so that contractors can bid on the work with some degree of assurance of material quantity for which they will be compensated.

Due to a combination of the contractor's "fixed" and "variable" costs, the actual price the contractor pays varies for each unit of material. Generally, if the contractor handles:

- less material than estimated in the contract, the unit price will be higher.
- more material than estimated on the contract, the unit price will be lower.

The contractor must bear all risks of handling material within the plus or minus 15% range.

Inspection of Construction

FAR 46.312

The purpose of inspection is to assure that the work, as it progresses, is in full compliance with contract requirements. Only through inspection and testing as the work progresses can you be assured that each increment is done in accordance with the specification and will ultimately result in a quality facility.

The inspections and tests referred to in the INSPECTION OF CONSTRUCTION (See Chapter 6.3 and Exhibit 8-18) clause can be classified under three broad classifications:

1. Inspection and testing conducted on a regular and continuing basis during work progress.
2. Inspection conducted to determine substantial completion.
3. Final inspection, wherein the contractor gives the Government notice that the work is completed.

☞ **NOTE:** The Government's right to inspect applies at each classification; there is no duty to inspect by the Government at any stage of the work. Thus, the failure of the Government to do the inspection will not release the contractor from its obligation.

INSPECTION OF CONSTRUCTION CLAUSE

FAR 52.246-12

a. Definition. "Work" includes, but is not limited to, materials, workmanship, and manufacture and fabrication of components.

b. The Contractor shall maintain an adequate inspection system and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The contractor shall maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract.

c. Government inspections and tests are for the sole benefit of the Government and do not:

(1) Relieve the Contractor of responsibility for providing adequate quality control measures;
(2) Relieve the Contractor of responsibility for damage to or loss of the material before acceptance;
(3) Constitute or imply acceptance; or
(4) Affect the continuing rights of the Government after acceptance of the completed work under paragraph (i) below.

d. The presence or absence of a Government inspector does not relieve the Contractor from any contract requirement, nor is the inspector authorized to change any term or condition of the specification without the Contracting Officer's written authorization.

e. The Contractor shall promptly furnish, without additional charge, all facilities, labor, and material reasonably needed for performing such safe and convenient inspections and tests as may be required by the Contracting Officer. The Government may charge to the Contractor any additional cost of inspection or test when work is not ready at the time specified by the Contractor for inspection or test, or when prior rejection makes reinspection or retest necessary. The Government shall perform all inspections and tests in a manner that will not unnecessarily delay the work. Special, full size, and performance tests shall be performed as described in the contract.

f. The Contractor shall, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the work with an appropriate adjustment in contract price. The contractor shall promptly segregate and remove rejected material from the premises.

g. If the Contractor does not promptly replace or correct rejected work, the Government may (1) by contract or otherwise, replace or correct the work and charge the cost to the Contractor or (2) terminate for default the Contractor's right to proceed.

h. If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or nonconforming in any material respect due to the fault of the Contractor or its subcontractors, the Contractor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

i. Unless otherwise specified in the contract, the Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's right under any warranty or guarantee.

Exhibit 8-18

The process of inspection is carried out by

- simply inspecting the work,
- conducting surveillance of the contractor's CQC inspection system, or
- using a third party under a separate contract or through the services of another agency.

In any event, to do a thorough job inspectors must be intimately familiar with the drawings and specifications, as well as methods and procedures.

What happens if the work and material are concealed? If the Government decides for some reason to examine already completed work by removing it or tearing it out, the contractor, upon your request, is required to immediately furnish all necessary facilities, labor, and material to perform the test.

1. If you or your inspectors find the work is defective or nonconforming in any respect due to the fault of the contractor or subcontractor, the contractor must pay the expenses of the inspection, plus all corrective action costs attributed to the nonconforming material and workmanship.
2. However, you must be aware of the consequences if the work is found to be satisfactory and in conformance with the contract. In this case you must modify the contract to provide an equitable adjustment regarding all costs attributed to the inspection, as well as an adjustment in granting a time extension if completion of the work was delayed in the process.

Therefore, daily inspection reports and daily file notations are of vital importance. Any disagreement encountered in the process of inspection must be reported to you and duly recorded. This will assure timely corrective action is taken before it is escalated into a claim.

Do you have to accept slightly defective goods or even those in substantial compliance? No, because the Government has the right to strict compliance; however, your actions or those of your inspectors may result in a waiver of the specification, preventing the Government from asserting that something is defective.

For instance, a waiver may occur ① where the Government fails to enforce exact performance of a requirement over such a long period of time that the contractor is led to believe that the nonconformance is acceptable, or ② when someone on the Government team encourages the contractor to continue performance after being notified that the specification cannot be met, such as the contractor's claim of alleged impossibility of performance.

Can the Government perform any test it desires? Yes, even one which is not required by the contract, so long as the test does not impose a more restrictive requirement than the contract calls for. Care should be exercised when doing so, as even the slightest deviation from the prescribed test might be considered an additional test, presenting a greater chance that any deviation from the one called for will be found unreasonable on appeal by the conttractor.

FAR 46.407(f)

Do you have to accept nonconforming work? There may be reasonable circumstances when the Government decides to accept, such as in the interest of the economy or urgency. However, when nonconforming work is accepted, an equitable price reduction must be obtained, and a modification issued.

Can you reject without first inspecting? Generally no, except in an instance whereby the contractor's own quality control records show the specification is not being met. When work is rejected you must

- do so as soon as practicable, otherwise the Government may be held to have accepted it; and
- contractor must be informed in writing, including the reasons for the rejection.

8.4 Constructive Changes

When a contractor performs work beyond that which is required by the contract without a formal change order, and it is perceived by the contractor that such work was informally ordered by the Government or caused by Government fault, a constructive change to the contract has occurred. Informal change orders (constructive changes) have the same legal effect as if they had been issued as formal change orders.

The term "constructive change" relates almost exclusively to Government contracts, and it is viewed as Governmental conduct which has the effect of requiring the contractor to perform work which, in theory, could have been ordered under the Changes clause. A constructive change has been described as:

> "... an act or directive by the Government, by way of an authorized agent, which causes a change, but which the Government contends is not a change, and for which the Government refuses to issue a change order." *

A constructive change order could result from any of the following actions by the contracting officer, you, the inspector on the job, or any

* Government Construction Contracting, Federal Publications, Inc. 1986

Government agent dealing with the contractor:

- Conduct in the normal course of administering the contract;
- Circumstances of contract performance;
- Oral or written actions;
- Omissions.

Generally constructive changes fall into three broad categories:

1. Specifications or drawings are defective. As a result the contractor is required to do extra work.
2. An authorized representative of the Government misinterprets the contract; **For example:**
   - Work that actually satisfies the requirement specified in the contract is erroneously rejected by the inspector; or
   - The contractor is ordered to perform work which is actually not required by the contract.
3. Government, after the work has been excusably delayed, denies the contractor an appropriate time extension and requires the contractor to comply with the original completion schedule. (See Chapter 8.1 on acceleration)

Constructive changes often originate because of differences of opinion over what is the proper interpretation of the contract documents.

For example, you may firmly believe that the work in question is required under the terms of the contract. The contractor believes it is not. Because of your firm belief, you refuse to issue a formal change order because in your opinion, the change is not required. Should your interpretation ultimately be found erroneous, relief can be granted the contractor under the constructive change theory.

Exhibit 8-19 lists some actions which may lead to a constructive change.

COMMON ACTIONS OR INACTIONS LEADING TO CONSTRUCTIVE CHANGES

- Acceleration
- Deceleration
- Defective specification
- Late or unsuitable GFP
- Inaction or silence
- Over zealous inspection
- Abuse of discretion
- Failure to disclose Government's superior knowledge
- Directing different method of performance
- Improper rejection of conforming work
- Government interference with the work
- Hindrance or failure to cooperate
- Erroneous contract interpretations
- Improper exercise of an option

Exhibit 8-19

There are three essential elements to establishing whether a constructive change has in fact occurred:

1. "**Change**" element.
   Has the contractor performed or been required to perform beyond the minimum that is obligated to be furnished under the contract?
2. "**Expense**" element.
   Has the contractor incurred a cost over that which was required under the contract as written?
3. "**Order**" element.
   Has the change been made as a result of a Government directive, rather than being done voluntarily by the contractor?

The directive must have been something other than

- advice
- comment
- suggestions
- opinions

which are frequently discussed between technical personnel and the contractor's employees.

☞ **NOTE:** While mere discussion of methods is not in itself sufficient to constitute a constructive change order, where the contractor is not directed or compelled to use a method other than by choice, suggestions by Government personnel that the contractor perform the work in a specified manner may be construed as a constructive change order.

Defective Plans and Specifications

The **classic type** of constructive change arises when the plans and specifications are defective, and the Government must correct them in order for the contractor to perform the work. This is a major area in which the doctrine of constructive changes has been applied; courts and boards have allowed contractors to recover where design specifications are involved, but not in performance specifications.

Most contracts are a combination of both design and performance, and courts and boards have stated that they will "test each portion of the specification" to determine which applies to the situation.

Where the Government has furnished a detailed design specification, the boards and the courts have held that this is an expression of an **implied warranty**, and it is the Government's intent to assume the risk. For this reason, it has been held time and again in the courts that the contractor does not have the duty to verify the correctness and adequacy of the specification. However, the Government's major defense in these cases is usually ① that if the contractor finds an error in any specification,

regardless of type, there is a duty to bring it to the attention of the contracting officer, and ② that the contractor should have read the contract as a whole (as in cases of oversight).

Another theory used by contractors to recover for defective specifications is that of impossibility or impracticality of performance. In this case the contractor must prove two things:

1. Work called for by the specification was either impossible or impracticable by definition; and
2. Risk of that impossibility should be on the Government.

Contracts for the construction of a building or public works project typically outline certain detailed specifications and drawings as to the quality to be maintained and may leave it to the contractor to decide on how the tasks are to be performed.

> However, during the course of construction, someone, typically on the technical side of the project, decides that a particular method of construction would be better than another method of doing the work.

If the Government insists that the proposed method be used when the contractor desires to use another satisfactory and more economical method, the Government will be responsible for any resulting additional costs under the constructive change doctrine.

Processing Claim

Paragraph (b) of the Changes clause (See Exhibit 8-10.) concerns constructive changes:

> written or oral orders - including directions, instructions, interpretations, or determinations - from the contracting officer (or her/his representative) which cause a change within the general scope of the work, will be treated as a change under the clause.

To prevent the presentation of constructive change claims long after the work has been done when the Government may have difficulty in adequately assessing the claim, there is a 20-day notice requirement which, however, excludes defective specification situations.

Since contractors claim substantial amounts of money under the Changes clause, the Government has a need for

- prompt notification,
- basis for claim, and
- cost.

The notice must address the following elements:

- Date,
- Circumstances surrounding claim,
- Source of the directive order, and
- A statement that the contractor regards the order as a construction change order.

A proposal for adjustment must be submitted within 30 days after receipt of the notice.

A change in the contract price and/or time is limited to costs incurred no more than 20 days prior to the date the contractor provides the written notice to the contracting officer. Exceptions may arise if the contracting officer:

- has actual or imputed knowledge of the facts giving rise to the claim,
- frustrates the giving of the notice,
- decides to consider the claim on its merits; or
- if giving notice would have been useless.

8.5 Value Engineering

Contractors often find ways to perform work which are less expensive than the methods specified in the contract documents. However, since normal contract changes may reduce the contractor's profits, there is little incentive to propose changes, even though the Government might benefit from their adoption. Value engineering is a technique which was developed to

FAR 48.102(a)

- overcome the contractor's hesitancy to propose changes by
- offering additional profit
- in exchange for good ideas.

The basic objectives of value engineering in construction are to:

- Eliminate "gold plating,"
- Take advantage of a contractor's special knowledge, and
- Cut the cost of projects to the lowest practicable level without compromising their function or sacrificing quality or reliability.

VECP

A value engineering change proposal:

- Requires a change to the instant contract in order to implement,
- Results in an overall projected savings to the agency, and
- Mustn't impair essential function or characteristics of the project.

Agencies have various procedures in place concerning the review and approval of VECPs which insure that all VECPs are handled in an objective and impartial manner prior to making a decision on acceptance.

Formal acceptance of the VECP is accomplished by a modification to the contract signed by both parties which includes

- description of the change in full detail,
- all necessary drawings,
- monetary benefits to the contractor as well as
- savings to the Government.

Acceptance/rejection is not subject to disputes.

Important steps in the VECP process are:

FAR 52.248-3

Step #1: Include clause in Solicitations over $100,000.
Step #2: Receive VECP and determine benefit to Government.
Step #3: Decide to adopt or reject.
Step #4: Provide for funding, if necessary.
Step #5: Execute modification.

Generally, you will work with the construction manager, technical representative, specification writer, user, etc. depending on the nature of the change. Each agency will have its own procedures and thresholds for processing VECPs.

Rejections must be made in writing and should include the technical reasons for such action. Reasons such as the following are not acceptable:

- "It violates the guide specification", or
- "It violates the design manual", or
- "The user doesn't like it or want it".

Sharing Arrangements

Sharing only applies to the instant contract and to collateral savings (agency costs of operation, maintenance, or GFP). Future savings are not applicable to construction contracts. (For example, energy efficient equipment with a higher first cost is not a valid VECP). There must be an instant contract savings attached to it.The **contractor's share** is determined by subtracting Government cost from instant contract savings and multiplying by:

FAR 48.104-1(b)

- 55% for fixed price contracts, or
- 25% for cost reimbursement.

In figuring **collateral savings**, remember that the contractor's share is 20% of the estimated savings during an average year, but shall not exceed whichever is greater:

FAR 48.104-2

- The contract's firm fixed-price, target price, target cost, or estimated cost at the time of VECP acceptance, or,
- $100,000.

An example of the calculation is shown in Exhibit 8-20.

EXAMPLE OF VECP CALCUALTION

Government Share: GS Contractor Share: KrS
Government Costs: GC Contractor Development Costs: KrC
Government Share Rate: GSR = .45
Contractor Share Rate: KrSR = .55
VECP Savings: CS

*Instant Cost Savings: ICS = CS - KrC

**Contractor's Share of Savings: KrS = (ICS - GC) x KrSR

***Contract Price Reduction: CPR = GSR x ICS + KrSR x GC

****Government Share of Savings: GS = CPR - GC

Example: Original Construction Contract Price: $1,700,000
VECP Savings (CS): $200,000
Contractor's Development Costs (KrC): $5,000
Government Costs (GC): $3,000

*ICS = CS - KrC
Instant Cost Savings = $200,000 - $5,000 = $195,000

**KrS = (ICS - GC) x KrSR
KrS = ($195,000 - $3,000)(.55)
Contractor's Share of Savings = $105,600

*** CPR = GSR x ICS + KrSR x GC
CPR = (.45)(195,000) +(.55)(3,000)
Contract Price Reduction = $89,400

****GS = CPR - GC
Government Share of Savings = $86,400

Exhibit 8-20

VECP Form

The contractor's share is based on computations which are arrived at by a systematic completion of a form similar to the one illustrated in Exhibit 8-21. Your agency may have a similar form for use.

VALUE ENGINEERING CHANGE PROPOSAL

	☐ APPROVED ☐ DISAPPROVED
CONTRACTOR SUMMARY SUBMITTAL	
FROM	DATE
TO	VECP NO.*
PROJECT	CONTRACT NO.
LOCATION	
SUMMARY OF CHANGE (DESCRIPTION - COMPARE ADVANTAGES AND DISADVANTAGES)	
BEFORE	
AFTER	

ESTIMATED COST SUMMARY

COSTS SHALL BE ESTIMATED IN ACCORDANCE WITH THE CHANGE PROVISIONS CONTAINED IN THE GENERAL CLAUSES OF THE CONTRACT. ATTACH "CHANGE ORDER ESTIMATE OF "BEFORE" CONDITION FOR THE CHANGE PROPOSAL. ALSO ATTACH "CHANGE ORDER ESTIMATE" FORM FOR DETAILED ESTIMATE OF "AFTER" CONDITION FOR THE CHANGE PROPOSAL.

THE FOLLOWING LANGUAGE IS THE SAME AS THAT USED IN CLAUSE 66 OF THE GENERAL PROVISIONS.

DESCRIPTION	DOLLARS
A. ORIGINAL (ESTIMATE OF COST BEFORE CHANGE PROPOSAL)	
B. PROPOSED (ESTIMATE OF COST AFTER CHANGE PROPOSAL)	
C. GROSS SAVINGS (A MINUS B)	
D. CONTRACTOR DEVELOPMENT AND IMPLEMENTATION COSTS (IF ANY)	
E INSTANT CONTRACT SAVINGS (C MINUS D)	
F. GOVERNMENT DEVELOPMENT AND IMPLEMENTATION COSTS (IF ANY)*	
G. CONTRACT PRICE REDUCTION (.45)(E) PLUS (.55) (F)*	
H. GOVERNMENT SAVINGS*	

*THIS INFORMATION IS TO BE FILLED IN BY THE GOVERNMENT

Exhibit 8-21

INFORMATION REQUIRED BY THE CONTRACTOR
(IF ANY ANSWER IS MARKED "YES", EXPLAIN IN REMARKS)

ITEM	YES (x)	NO (x)
1. DOES THIS PROPOSED CHANGE AFFECT THE TIME OF COMPLETION AS STATED IN THE CONTRACT?		
2. HAS THE CONTRACTOR SUBMITTED THE PROPOSED CHANGE PREVIOUSLY TO THIS OFFICE OR ANY OTHER GOVERNMENT AGENCY?		
3. DOES THIS CHANGE AFFECT OTHER COSTS TO THE GOVERNMENT, SUCH AS GOVERNMENT-FURNISHED PROPERTY OR COSTS OF CONTRACT-RELATED ITEMS?		
4. DOES THIS PROPOSED CHANGE INCREASE THE MAINTENANCE OR OPERATION COSTS OF ORIGINAL OR PROPOSED ITEMS?		
5. IS A SUBCONTRACTOR INVOLVED IN THIS PROPOSED CHANGE TO THE ORIGINAL CONTRACT?		
6. DOES THE CONTRACTOR INTEND TO RESTRICT THE GOVERNMENT'S RIGHT TO USE ANY DATA DESCRIBED IN THIS PROPOSED CONTRACT?		
7. DOES THIS CHANGE INVOLVE THE USE OF PROPRIETARY MATERIALS?		

REMARKS

CHANGES AND/OR REVISIONS TO DRAWINGS AND SPECIFICATIONS

ATTACH APPLICABLE CONTRACT DRAWINGS AND SPECIFICATIONS, INCLUDING CONTRACTOR'S OR SHOP DRAWINGS OR LITERATURE WITH ALL CHARGES MARKED ON THE DRAWINGS AND SPECIFICATIONS.

DATE BY WHICH THE CONTRACTOR MUST HAVE APPROVAL OR DISAPPROVAL OF THIS VECP IN ORDER NOT TO DELAY COMPLETION OF THE PROJECT	
CONTRACTOR'S REPRESENTATIVE (SIGNATURE)	DATE
DATE REC'D BY GOVERNMENT*	ROI*
GOVERNMENT REPRESENTATIVE (SIGNATURE)	DATE

*THIS INFORMATION IS TO BE FILLED IN BY THE GOVERNMENT

Exhibit 8-21 (cont.)

The contractor completes and submits the VECP form except:

- On page 1, the Government assigns a VECP number and completes Blocks F, G, H.
- On page 2, the Government indicates the date the VECP is received and also signs form.

A remarks block may be used for any explanation the contractor deems necessary.

Exhibit 8-22 provides some practical points to remember when processing a VECP.

A VECP does not reduce profit in any way.

PRACTICAL POINTS TO REMEMBER ABOUT VECPs

Encouraging the Contractor

Government personnel, particularly the individual dealing directly with the contractor out in the field, should encourage contractors to pursue VECPs. The only exceptions should be where there is readily apparent clear-cut technical reasons why the idea would not be entertained. Be careful, however that you advise the contractor that your encouragement does not constitute acceptance, or assure final approval, but instead, merely indicates the Government's willingness to research the proposal in greater depth.

Urgency in Processing a VECP

One of the inherent problems in processing VECPs in the construction environment lies in the urgency category. VECPs tend to cause tacit delays in construction while decisions are pending on its acceptance. In the meantime you may have expensive labor and equipment standing by awaiting a decision. Therefore VECPs are normally processed on an urgent priority basis.

Unsolicited VECP

Under the current regulations there is no provision for you to accept an unsolicited value engineering proposal. By this is meant that unless the contractor submits the VECP under a contract that contains the construction Value Engineering Clause, you cannot accept it. The Court of Claims has held that when a value engineering proposal is submitted without such a contract clause there is no statutory authority to purchase "suggestions".

Exhibit 8-22

8.6 Determing Equitable Adjustments

The underlying basic principle applicable to price adjustments under the construction contract clauses is that they are almost always measured by the cost impact on the contractor, although some allow for time only. Note that all of them allow for an "equitable adjustment" to be made with the exception of the Suspension of Work clause, where only the word "adjustment" is used.

The definition of an equitable adjustment which you may frequently hear or read about is the one extracted from a BCA decision in 1957 which reads:

> " the difference between what it would have reasonably cost to perform the work as originally required and what it reasonably cost to perform the work as changed." *

However, you may find the definition more clearly defined in Exhibit 8-23 which provides precisely what is involved in arriving at an equitable adjustment.

DEFINITION OF AN EQUITABLE ADJUSTMENT

An appropriate modification of the amount due under a contract which is just, fair and right in consideration of the circumstances of the individual case.

Modification:	A written document.
Amount:	Something quantifiable: Cost impact on the contractor in dollars/time.
Just, fair and right:	Judgement of two parties (bilateral agreement).
Consideration:	Quid pro quo. Case by case basis.

Exhibit 8-23

The pricing of adjustments begins with a Government estimate and the receipt of the contractor's proposal. FAR guidance concerning the process of arriving at an equitable adjustment is essentially the same as any other negotiation except for a few minor differences. Exhibit 8-24 reviews the generic process.

*Modern Foods, Inc., ASBCA 2090, 57-1 BCA 1229 (1957).

FAR GUIDANCE FOR THE MODIFICATION PROCESS	
ACTION	**FAR REFERENCE**
Contractor requested to submit a proposal.	FAR 15.804
Government estimate prepared.	FAR 36-203
Proposal is analyzed.	
l. Cost & Price Analysis.	FAR 14.804
2. Cost Principles.	FAR Part 31
3. Audits.	FAR 15-801
4. Direct Cost Analysis.	FAR 31.202
5. Indirect Cost Analysis.	FAR 31.203
6. Profit Allowability.	N/A
7. Profit Objectives.	FAR 15.901(c)
8. Certified Cost or Pricing Data.	FAR 15.804-2
Prenegotiation Objectives are established.	FAR 15.807
Negotiation.	FAR PART 15
Price Negotiation Memorandum.	FAR 15.808

Exhibit 8-24

Requirement for Cost Breakout

In anticipation of modifications which will be required during performance of a construction contract, there is a need for the contractor to present costs in such a manner that a comparison can be made to the Government estimate. Agencies have initiated special provisions to require the contractor to provide a cost breakdown in connection with any proposal made for a contract modification. (See Exhibit 8-25 for a typical clause.)

FAR 15.804-6(b)

Your agency may use a similar one. In lieu of a specific clause, some agencies merely require the contractor to submit the proposal on an agency form, which requires that the proposal be broken down into cost elements. SF 1411, Contract Pricing Proposal Cover Sheet, must be submitted on proposals for price adjustments exceeding $100,000.*

Breakdown of Costs

In breaking down the price, the contractor must also provide individually priced breakdowns submitted by the subcontractors. The price breakdown is divided into the activities which are affected by the modification. An activity is a task or work element which is required to be accomplished by a single trade.

* $500,000 for DOD, NASA, and Coast Guard.

MODIFICATION OF PROPOSALS - PRICE BREAKDOWN

The contractor, in connection with any proposal* made for a contract modification, shall furnish a price breakdown, itemized as required by the contracting officer. Unless otherwise directed, the breakdown shall be in sufficient detail to permit an analysis of all material, labor, equipment, subcontract, and overhead costs, as well as profit, and shall cover all work involved in the modification, whether such work was deleted, added or changed. Any amount claimed for subcontracts shall be supported by a similar price breakdown. In addition, if the proposal includes a time extension, a justification shall also be furnished. The proposal, together with the price breakdown and time extension justification, shall be furnished by the date specified by the contracting officer.

Exhibit 8-25

Activities must be further broken down in terms of quantities and cost of material, equipment and labor. Exhibit 8-26 shows what a price breakdown would contain using, as an example, the construction of an 8" concrete block wall.

EXAMPLE - BREAKDOWN BY ACTIVITY (ONE TASK)

Materials	Materials must be converted into the required amounts of: • Sand; • Cement; • Lime; and • 8 inch concrete blocks
Equipment	Mixer time to mix the mortar. (manhours)
Labor	Hours converted into man days to perform the task.
Miscellaneous	The quantity of block together with other information on the worksheets, such as length and height of the wall, would be used to estimate the number of scaffold frames and scaffold boards required, together with listing of special tools.
Costs	Unit costs may be applied to each of the above, so that costs of material, equipment and labor can be ascertained separately on each activity affected by the modification. (NOTE: Some agencies have eliminated the use of unit costs.)

Exhibit 8-26

* Some agencies have established thresholds. The VA, for example, uses $1,000.

GOVERNMENT ESTIMATE REQUIREMENT ON MODIFICATIONS

FAR 36.203

(a) An independent Government estimate of construction costs shall be prepared and furnished to the Contracting Officer at the earliest practicable time for each proposed contract and for each contract modification anticipated to cost $25,000 or more. The Contracting Officer may require an estimate when the cost of required work is anticipated to be less than $25,000. The estimate shall be prepared in as much detail as though the Government were competing for award.

(B) Access to information concerning the Government estimate shall be limited to Government personnel whose official duties require knowledge of the estimate. An exception to this rule may be made during contract negotiations to allow the contracting officer to identify a specialized task and disclose the associated cost breakdown figures in the Government estimate, but only to the extent deemed necessary to arrive at a fair and reasonable price. The overall amount of the Government's estimate shall not be disclosed except as permitted by agency regulations.

Exhibit 8-27

Government Estimate

The requirement for a Government estimate is provided in Exhibit 8-27.

Although a threshold of $25,000 is specified, some agencies have used discretion in lowering the thresholds to varying amounts. (VA, for example, uses $5,000.) Some agencies require an official Government estimate to be prepared on all negotiations, regardless of dollar value.

Note that in paragraph (a) of the clause, the Government is always required to prepare the Government estimate in the same manner as the contractor. By requiring the contractor to submit the proposal broken down in the same manner as the Government estimate, it is easier for you to perform cost analysis.

Equitable Adjustment

Equitable adjustments are to be determined whenever the contractor's cost of performance is increased or decreased by an event described in one of the contract clauses.

Although the clauses refer to the "equitable adjustment" that is to be arrived at, they do not offer any criteria or standards for the measurement of what constitutes an "equitable adjustment". This is in marked contrast with the provisions of the Termination for Convenience" clause which

prescribes in detail the process to be followed. Therefore it has been left up to the boards and the courts to establish “stare decisis" * principles to be followed.

After the Fact

It is the policy and goal of all Government agencies to use forward pricing of changes by means of an equitable adjustment. But because of the nature of construction, equitable adjustment is most often determined after the fact. This is especially true when constructive change orders are involved, or when the Government and the contractor cannot agree upon the equitable adjustment.

In most such cases the work has been accomplished and the costs have been incurred by the time of the final determination of what the equitable adjustment will be. This changes the posture of profit due the contractor in relationship to risk, but reduces possible contingencies which may be present in forward pricing the modification.

Methods

The methods of determining the amount of an equitable adjustment are covered in some detail in Chapter 7.3. Basically, a contractor must prove that costs incurred are reasonable. Reasonableness is not synonymous to incurred costs, however.

The courts have been moving away from subjective concepts and turning more to permitting actual reasonable costs in determining equitable adjustments. The concept of reasonable cost is not new:

FAR 31.201-3(a)

> “A cost is reasonable if, in its nature or amount, it does not exceed that which would be incurred by an ordinary prudent person in the conduct of competitive business.”

This is also known as the “Bruce Rule.”

One of the means of determining if a cost is reasonable, is by measuring it against what an ordinary prudent business person would consider just in the conduct of a competitive business. A cost can also be determined reasonable using:

- Estimates (other than “ballpark”)
- Expert testimony (it helps)
- Statistics (provided it is based on actuals)

*Stare decisis: “let the decision stand.” The principle that prior decisions of a court should stand as a precedent for future guidance.

- Industry standards
- Learning curve
- Consumer price index (steel, lumber, etc)
- Previous buys in materials (gravel, cement, hardware).

Courts Definition

The courts have actually conceptualized the matter by deriving a formula which says that "the difference between what it would have reasonably cost to perform the work as originally required and what it costs to perform the work as changed" constitutes a fair and reasonable equitable adjustment.*

Thus the technique that strives to attain this concept requires that you attempt to limit the repricing to the effect of the change alone, without altering the basic profit or loss position of the contractor before the change occurred. In other words, what you must guard against is allowing the contractor to use the occasion to

- increase profit,
- convert a loss to a profit,
- correct an undeclared mistake, or
- correct an underbid situation.

Pricing Deleted Work

If you are determining the reasonableness of the estimated cost of performing deleted work, the contractor's bid may be used as evidence of reasonableness. The Government has the burden of proving that any downward adjustment in price due to a change order deleting work is equitable. Because the principle of equitable adjustment is

> to put the contractor in the same position as it would have been despite the change, an adjustment should neither increase the contractor's loss nor decrease it at the Government's expense. It becomes more complicated when subcontractors are involved.

Item Substitution

It is very common for you to be placed in the position of determining an equitable adjustment where one item of work is substituted for another. This can occur under three different sets of circumstances:

- Contractor has not yet begun the work to be deleted.
- Contractor has partially performed the work to be deleted.
- Contractor has finished the work to be deleted.

In the first two situations, a reasonable price for the deleted work must be decided upon. Since the price of the work is included in the original contract price, the Government should receive a credit for incomplete work.

*Celesco Industries, Inc., ASBCA 22251, 79-1 BCA 13,604 (1978)

However, this is not so in the third situation. In this case the Government should receive no credit because the substitution serves to add work to the job rather then delete it. Also, any cost of undoing work already completed should be credited the contractor.

In essence, the contractor must prove any upward adjustments to which it is entitled, and the Government any downward adjustments for deleted work.

Proving Cost

The contractor is expected to prove costs by submitting the best available evidence of costs incurred. This may be done by submitting actual cost data in an after the fact situation, or estimates, or a combination of both. Estimates must be supported by good substantiating data. What kind of data this would be depends on circumstances, but more than likely in a construction contract situation it would consist of a

> complete analysis by a competent reputable estimator, supported by spread sheets, detailed schedules (CPM or equivalent if impact and delay are involved), etc.

(See Chapter 7.3 for a discussion of costs associated with equitable adjustment.)

There are a number of practical things to remember when pricing adjustments. Although not entirely comprehensive, Exhibit 8-28 attempts to bring some of these to your attention by offering some general guidance.

GENERAL GUIDANCE IN PRICING ADJUSTMENTS

- In distinguishing between a price adjustment under a contract clause and a suit for damages for breach of contract, in a suit for damages the Cost Principles for determining allowable cost may not be applicable.*

  Factors to be considered in establishing reasonableness of costs:

  (a) Whether it is the type of cost generally recognized as ordinary and necessary for the conduct of the contractor's business or the contract performance;

  (b) The restraints or requirements imposed by such factors as:
  • Generally accepted and sound business practices;
  • Arm's length bargaining;
  • Federal and state laws and regulations; and
  • Contract terms and specifications.

  (c) The action that a prudent business person, considering responsibilities to all concerned, including the Government and public at large, would take under similar circumstances; and

  (d) Any significant deviations from the established practices of the contractor that may justifiably increase the contract costs.

- The analysis for adjusting the contract time for a modification is identical to the analysis completed for delay situations which were discussed in Chapter 7. In fact, many modifications are issued strictly to compensate a contractor for delays. (Time only)

- The goal [arriving at an equitable adjustment] is reached by agreeing on a fair and reasonable price. However, agreement is not necessarily required on every element. Reasonable compromises may be necessary.

- The Contracting Officer is solely responsible for the final pricing decision. Specialists and auditors provide recommendations only**

- The proper measure of an equitable adjustment is the cost impact on the contractor concerned. Unless there is a cost increase, the contractor is not entitled to an equitable adjustment. Attempts to measure the adjustment by market value of the work or by the costs which would have been incurred by other contractors are generally rejected.

- In establishing the total amount of an equitable adjustment, the burden of proof is allocated to the one who is claiming the benefit of the adjustment. In other words, the Government would have the burden of proof in proving how much a downward adjustment should be made for deleted work, and the contractor the burden of proof on an upward adjustment.

- There is no single CORRECT or PRECISE method of arriving at the dollar amount of an equitable adjustment.

- While catalog or market prices used to support costs of items in a supply contract may appear appropriate, in construction an equitable adjustment is based on reasonable incurred costs, NOT fair market value.

* Meva Corp. v. United States, 206 Ct. Cl. 203, 511 F.2d 548 (1975).
**Lectro Magnetics, Inc., ASBCA 1597, 73-2 BCA 10,112 (1973); Bruce Construction Corp. v. United States, 2163 Ct. Cl. 97, 324 F.2d 516 (1963).

Exhibit 8-28

Negotiation

Negotiation is the art of achieving a satisfactory settlement of the contractor's, or the Government's proposal for compensation for a contract modification. If you conduct it effectively it most likely will culminate in a mutual agreement, thereby avoiding a time consuming claim that follows Disputes procedures. (See Chapter 9.1.)

Team

Team approache to negotiations should be used in the following instances:

- Requirement involves highly technical considerations.
- Large amounts of Government facilities and/or other property is involved in the change.
- Significant portion of the total technical effort will be performed and a major share of the dollars allocated will be expended by subcontractors at various tiers.

Teams members should include:

- Contracting officer.
- Cognizant field personnel (construction manager, project manager, etc.).
- Auditor, or cost and price expert.
- Construction estimator.
- Legal counsel (advisor).
- User (in some situations).

Timing

Timing can be an extremely important factor in negotiations for modifications.

- If negotiations are undertaken before sufficient information is available as to the requirements and conditions of the work, neither the Government nor the contractor will be able to establish a fair and reasonable price with a reliable degree of accuracy.
- If the negotiation is in advance of the actual change order, the proposed modification may be based largely on estimated, anticipated costs.

Discussions

Much information is available and has been written about various techniques and the art of negotiation. The Armed Services Procurement Manual (ASPM) for Contract Pricing, although directed to Contracting Officers of the Department of Defense, provides very useful guidance to all contract negotiators and Contracting Officers of all agencies in conducting all types of negotiations.

8.7 Document Change Orders

FAR 43.204

When change orders are not forward priced, they require two documents (SF 30) to be issued:

1. Change order, and later a
2. Supplemental agreement reflecting the resulting equitable adjustment.

There are four guidelines to follow when definitizing unpriced change orders:

1. Negotiate equitable adjustment ASAP after issuance of change.
2. If your agency has ACOs, they shall consult with contracting officer for the procurement before negotiating any adjustment to delivery schedule.
3. Contracting activities shall establish a tracking system to ensure accurate identification and definitization of unpriced changes.
4. A cost analysis of the contractor's segregable costs shall be performed and additional funds secured as necessary.

The change order or supplemental agreement embodying the contract modification should clearly delineate what is included and what is excluded from its coverage. Furthermore, to preclude subsequent controversies, the supplemental agreement should contain a release statement, as follows:

FAR 43.204(c)

> "In consideration of the modification(s) agreed to herein as complete equitable adjustments for the contractor's _____"proposal(s) for adjustment," the contractor hereby releases the Government from any and all liability under this contract for further equitable adjustments attributable to such facts or circumstances giving rise to the "proposal(s) for adjustment" (except for_____)."

Unilateral Modification

Sometimes negotiations are held and in spite of your desire to arrive at an equitable adjustment, you fail to reach an agreement on part or all of the issues. Once you are convinced that it is futile to continue, it is time to end the discussions:

- If a partial agreement has been reached, issue a modification specifically spelling out the things you have agreed upon, and the issues which remain unsolved.
- If you have not come to terms with any of the issues, you may issue a unilateral modification based upon the revalidated Government estimate. In this process, you have set the stage for any future claim to be filed in order to resolve the dispute under the Disputes clause.

Documentation

You document the modification by setting up a file folder. A suggested method is one used by GSA, which is illustrated in Exhibit 8-29.

CHANGE ORDER FILE

Right side of the file folder:

TAB 1: GSA Form 49 (Procurement Request)

Completed Findings of Fact for Contract Modifications, which is used for the justification and description of the modification.

TAB 2: Scope of the work, including any revisions and any drawings required.

TAB 3: Government estimate and technical analysis.

TAB 4: RFP letter and contractor's proposal.

TAB 5: Negotiation Memorandum or Business Clearance.

TAB 6: General correspondence.

Left side of file folder:

Reserved for a checklist and the signed Change Order.

Exhibit 8-29

A Findings of Fact for Contract Modification is prepared by the contracting officer or an authorized representative. It can be used on all construction contracts awarded under new construction, repair and alteration programs.

It can also be used to document changes to the contract prior to issuance explaining the reasons for the charge and why it is in the best interest of the Government to do so. Other agencies have similar formats used for the same purpose.

QUESTIONS & ANSWERS

1. Does the Contracting Officer have any legal right to deny any portion of the contractor's multiple request?

Each one of the contractor's requests must be dealt with separately. The contracting officer and the contractor's legal rights are contained in the clauses which pertain to delays: Suspension of Work , Differing Site Conditions, Changes, and Default.

Under the Suspension of Work clause the Government has the legal right to "order a suspension, delay, or interrupt all or any part of the work. . . "

2. Does the contractor have any legal or contractual basis for requesting 60 days time plus extended overhead?

The scenario gave insufficient information for which you could draw a conclusion concerning a time extension or any extended overhead entitlement. As a matter of fact, the narrative alluded to the lack of information contained in the contractor's request.

In order to recover unabsorbed or extended home office overhead a contractor must prove:

- *That the Government caused the delay, either by its action or inaction.*
- *The delay was not concurrent.*
- *The contractor was damaged by the delay.*

The burden of proof is on the contractor to provide all evidence and documentation, including the fact that the work could not be replaced by other means.

3. Does the Government have a right to delay for a reasonable time?

The clauses refer to a "reasonable" time that a contract can be delayed without the need or right to an equitable adjustment, although a definition as to what is considered "reasonable" is conspicuous by its absence. Therefore, it has been left to the courts and the boards to establish precedence. What has evolved is a rule that is consistently referred to as the "total" theory, which means that the test of reasonable/unreasonableness is accomplished by taking into consideration the total surrounding contract environment, including:

- *Contractor's allocation of risk.*
- *Contractor's particular needs at the time.*
- *Convenience of the Government's interest.*
- *Foreseeable consequences of the Government's act or failure to act.*

4. How important is timely and thorough documentation?

The requirement for "dotting all of the i's and crossing the t's" is appropriate when referring to file documentation and good contract administration. Your job is not to design, build, or manufacture, but to administer contracts, which entails significant responsibilities, including documentation of all events throughout the life of the contract, as they occur, not after the fact.

CHAPTER 9

REMEDIES

HOW DO WE GET THE BUILDING ON TIME?

DATE: *June 16, 1991*
FROM: *Greg Harris*
TO: *Bill Gibson, Contracting Officer*

SUBJECT: Status on the CTC Project

1. Fortunately I have reduced the tension and animosity between the inspector and the contractor's project manager by having a meeting and discussing differences. However, there have been other problems that have recently developed which leads me to suspect that a claim may be brewing. Now that problems have smoothed over between the inspector and the project manager, the contractor has been complaining that everyone (the Government) is picking on the superintendent.

What are some of the tell-tale signs of an impending claim?

2. The A/E Title II inspector, after a site visit earlier today, reported that the fire alarm wiring, which is complete, is two wire sizes too small and will not meet code. They also found 3/8 inch thick drywall installed where the contract calls for 1/2 inch thick drywall.

What are the recourses?

I know that for 3 months the contractor has complained that the pumps are too small. The A/E also checked and says the design will work. The contractor flooded the lift station with a fire hose and it drained very slowly. The Title II person called the pump "a bunch of junk," but I reminded him that after reviewing the paperwork, the A/E himself recommended approval of the submittal on the pump. I subsequently was reminded that the Government wrote the specification on the pump, and approval only meant that it met the spec.

Who is the owner of liability in this case?

Since the pump has been inspected and accepted what would the appropriate remedy be?

3. At today's progress meeting I found out that work in place continues slipping behind the schedule projections. Last month the contractor was 10% behind schedule. At that time, I sat down with the contractor's project manager and had an extensive discussion concerning the delinquency. The project manager assured me that they would regain "every inch of lost ground." The contractor is now 20% behind schedule. This time the project manager said that no additional efforts are planned to regain the lost time. The owner of the firm also said that they will be happy to pay liquidated damages if they miss the completion date.

4. You sent a letter to the contractor, citing the Schedules for Construction Contracts clause, directing him to complete all work by the original completion date, along with a request to submit a plan as to how and when the lost time will be gained. A reply is due in 10 days. If this doesn't bring any satisfactory results, we may want to consider termination for default.

Would termination be an appropriate remedy?

Do I have to "fool around" with sending those Show Cause and Cure Notices?

COURSE LEARNING OBJECTIVES

At the completion of this course, you will be able to:

Overall: Establish validity of a claim and perform related duties during the claims process.

Select and use remedies that minimize impact of the contractor's performance problems.

Perform all tasks leading up to and including the actions required in terminating for convenience or default.

Individual:

9.l Given a dispute between the Government and the contractor:

- Identify the major provisions of the Contract Disputes Act.
- Recognize when a dispute becomes a claim.
- Identify features which establish validity of the claim.
- Follow prescribed claim procedures.

9.2 Differentiate between the various remedies available, and identify and apply the applicable regulations or clauses:

9.2.1 Preventative Remedies

9.2.2 Standard Clauses.

- Liquidated Damages
- Materials and Workmanship
- Superintendence by the Contractor
- Inspection of Construction
- Warranty of Construction
- Buy American Act - Construction Materials

9.2.3 A/E Liability.

9.2.4 Cure or Show Cause Notices.

9.3 Use the terminations remedy as a last resort.

9.3.1 Termination for Default.

9.3.2 Termination for Convenience.

INTRODUCTION TO REMEDIES

Disputes Leading to Need for Remedies

One cannot discuss remedies without also discussing the dispute that leads to the need for a remedy.

A “dispute” is formed under a contract when a controversy develops as to the interpretation of performance, of time, or money due to either party under the contract.

A “remedy” is that which the complaining party seeks to enforce or recover as a means of resolving a “dispute”.

Categories of Remedies

There are several broad categories of remedies:

- Preventative
- Standard Clauses
- A/E Liability
- Cure or Show cause notice

Contracting Officer's Role

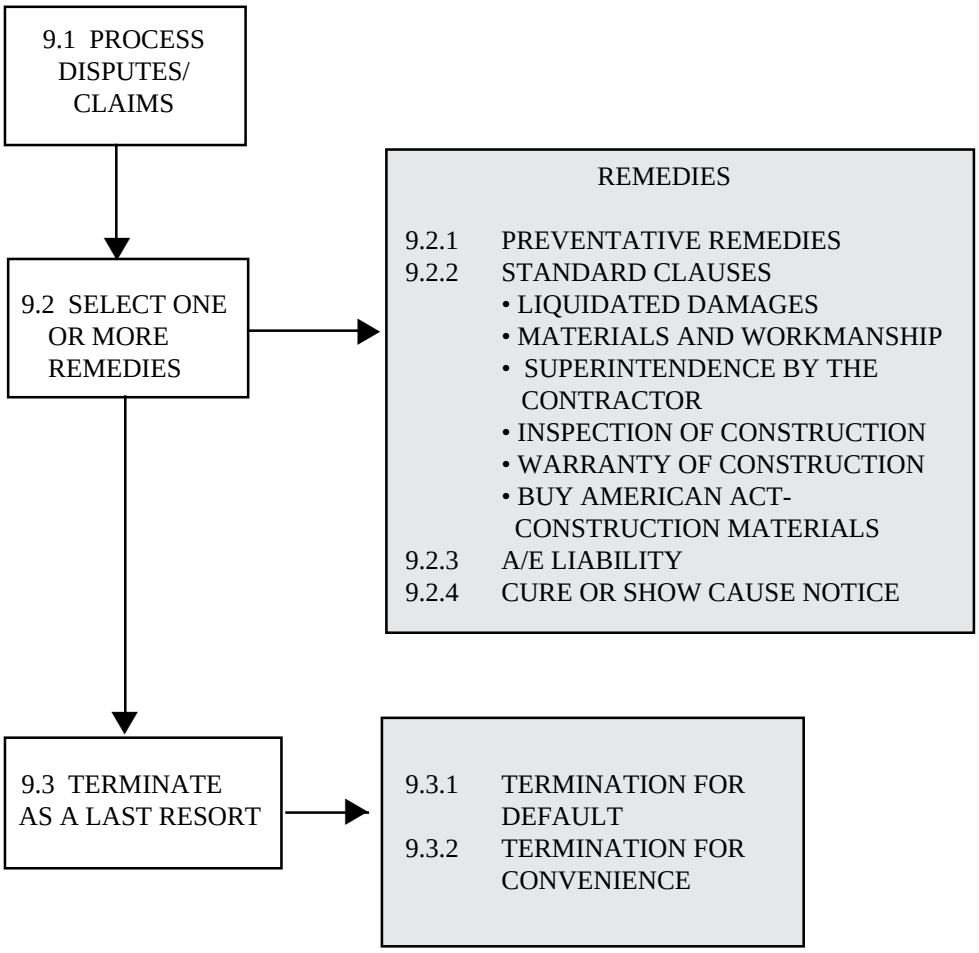
The importance of the contracting officer’s role just prior to and during a dispute cannot be overemphasized:

- Rules which guide and limit the contracting officer,
- Role as “arbiter of first resort” with respect to contract disputes,
- Final decision which must be made under the Disputes clause, and
- Dilemma concerning whether to terminate or not to terminate.

Steps in Performance

The steps in utilizing remedies are charted on the next page. Following the chart, each step is discussed in turn.

STEPS IN UTILIZING REMEDIES



STEPS IN UTILIZING REMEDIES

9.1 Process Disputes/Claims

FAR 33.202

The Contract Disputes Act of 1978 (CDA) establishes procedures and requirements for asserting and resolving disputes and claims by or against contractors arising under, or relating to a contract subject to the Act. It provides for the litigation of contract disputes by establishing:

- Contracting officer's final decision,
- Contract Appeals Board, or
- Claims Court and Court of Appeals for the Federal Circuit.

The Act provides for contractor claims which:

- May relate to, as well as arise under, a remedy-granting clause; or
- Are considered relating to a contract, i.e.
  - Breach of contract, or
  - Mistake claims.

The CDA requires that the disputes procedures be used by all Federal agencies. The major provisions of the Act are illustrated in Exhibit 9-1.

MAJOR PROVISIONS OF THE CONTRACT DISPUTES ACT OF 1978

1. The requirement for a contracting officer's final decision.
2. Certification of contractor claims in excess of $50,000.
3. The payment of interest regarding claims.
4. Introduces the language "all claims relating to contract", as opposed to "arising" under the contract.
5. Provides that all claims must be in writing and be submitted directly to the contracting officer.
6. Provides the contractor a choice to proceed to the boards or direct to the Claims Court.
7. Gives the Government the right to appeal board decisions to the courts.
8. Allows agencies to require the contractor to continue performance pending final appeal, suit or settlement.
9. Civil penalties for contractor claims that are fraudulent or based on a misrepresentation of fact.

Exhibit 9-1

Disputes

A dispute arises when a controversy exists as to the interpretation of contract performance, time, or of money due either party under the contract.

- Honest disputes over performance and interpretation of contract clauses occur in the smoothest of contract relationships.
- Even clear contract terms and conditions can give rise to the necessity of interpretation.

Resolution by mutual agreement is frequently possible. However, in spite of all the preventive measures available, disputes are a "fact of life" in a construction contract environment. They

- develop from all types of risks which are inherent in construction projects, and
- are fueled at times by thin profit margins reflecting the competitive nature of the construction industry.

When an agreement cannot be reached, the contractor may elevate the dispute to a formal claim by invoking a statutory resolution. Exhibit 9-2 defines a claim.

DEFINITION OF A CLAIM

FAR 33.201

"**CLAIM"** means a written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract. A claim arising under a contract, unlike a claim relating to that contract, is a claim that can be resolved under a contract clause that provides for the relief sought by the claimant. However, a written demand or written assertion by the contractor seeking the payment of money exceeding $50,000 is not a claim under the Contract Disputes Act unless it is properly certified. A voucher, invoice, or other routine request for payment that is not in dispute when submitted is not a claim. The submission may be converted to a claim, by written notice to the contracting officer as provided in 33.206(a), if it is disputed either as to liability or amount or is not acted upon in a reasonable time.

Exhibit 9-2

The need for effective disputes and claims management is a must. Exhibit 9-3 lists criteria for the practical side of good disputes and claims management.

CRITERIA FOR EFFECTIVE DISPUTE/CLAIMS MANAGEMENT

• Meet the issues head-on:	Before arguments and disputes can escalate, both you and the contractor should recognize that a difference of opinion exists. Separate the side issues and concentrate on the REAL issues.
• Resolve disagreements quickly:	After the issues have been identified and the facts have been gathered, the parties should move to resolve disputes quickly.
• Manage the dispute:	Your duties do not end with the identification of a dispute. Often, resolution is difficult because of "unreasonable" positions taken. Avoid taking the attitude that the situation is "hopeless". Reassess your own position and request that the contractor do the same. Dismiss any negatives you may have in your personal feelings. Don't hesitate to ask for assistance.
• Negotiate the dispute:	Be timely; Be prepared; Know the issues on which you may compromise: Know the ones that you cannot. Be fair; Be professional, and once a bona fide compromise is reached, delineate all of the matters discussed and promptly obtain a satisfactory agreement.
• Recognize that claims are "time sensitive":	Whether you are looking at internal disposition procedures, the contractor's demands, or time constraints pursuant to regulations, there are constant pressures brought to bear. Given the nature of the actions required, you have a reasonable time to act, but there is no room for delays.
• Proper contract file maintenance:	This is the key to having the critical documentation that the Government requires in order to provide a timely response to a claim.

Exhibit 9-3

Claims Avoidance

Before a claim becomes a claim, there must exist a dispute, which has its beginning as a mere disagreement. Techniques for avoiding a claim and settling the dispute include:

- Continuing to consider, discuss and negotiate the various elements of the disagreement, especially during this early stage of the process.
- Dividing the problem into separate elements, such as the technical and monetary aspects, will aid in bringing the parties closer together. This method provides the parties with the opportunity to discuss the merits of the technical aspect, without considering the dollar impact. From that may spring the basis of entitlement, and later the financial aspects can be considered.
- Talks by individuals who have not participated substantially in the matter can offer aid in resolution of differences, particularly if an impasse is reached.

Determining what is, and what is not a claim is not always obvious. Unfortunately there is no criteria which can be applied in every instance to reach a fail-safe decision. If you receive a letter from a contractor which raises more questions than it answers and you are uncertain about the contractor's intentions, you may consider:

- Talking to someone who may have already dealt with the problem you are facing for the first time,
- Consulting your staff attorney and seeking advice,
- Writing a letter to the contractor and asking if a claim is being submitted. (You may offer some reminders as to what needs to be furnished.)

The reason these steps are important is that the issues must be addressed **NOW**, not six months later when facts and circumstances are difficult to reconstruct in defense of the manner in which the problem was handled.

There are usually warning signs that signal a potential claim. Experience in dealing with such matters will quickly provide you with an awareness of possible trouble. Exhibit 9-4 explores some of the warning signals which may alert you to a potential dispute which may ultimately lead to a claim. Some are subtle, others are graphic.

WARNING SIGNS OF A POTENTIAL CLAIM

- There is a lack of specific information from the contractor during the Preconstruction Conference as to how the job will be completed.
- Failure of the contractor to begin work within approximately 10% of the total contract duration.
- Repeated failure of the contractor to meet dates on the critical path of the project schedule.
- Repeated safety violations/accidents, indicating poor management.
- Repeated incidents of poor quality or rework.
- Complaints from site workers to Government personnel about conditions.
- Refusal by the contractor to sign bilaterally negotiated contract modifications or agreements containing the required “release” language.
- Letters are received from the contractor that allude to field problems, but without specific details regarding the problem.
- Receiving a barrage of correspondence from the contractor requiring replies to very insignificant matters, creating a nightmare in paperwork.
- Persistent complaints from the contractor concerning the behavior, motives, or requirements of the inspector or contract administrator that are found to be without foundation.
- Receipt of complaints from subcontractors concerning late payments or nonpayments.
- Excessively long punch lists.

Exhibit 9-4

Role of the Contract Specialist

Everyone involved in construction contracting needs to develop an appreciation of claims because they are an important element of managing contracts.

- The manner in which claims are handled, from the time that a dispute manifests itself until final action is taken is a reflection on your activity, as well as your agency.
- You need to know not only the basics in analyzing a claim, but to be able to put together a quality claims package.

It takes skill, persistence, and clear knowledge of the regulations concerning disputes and claims in order to perform these tasks.

You may find to your surprise that there are few new skills required in analyzing a claim. **For example**,

- The same skills are used in evaluating the merits of an agency protest against a proprietary specification or an “experience” clause in a construction contract.
- If you have looked at a request for bid correction in terms of the question of whether the contractor has presented clear and convincing evidence of the existence of a mistake and the intended bid, you have performed the same kind of examination that takes place when reviewing a claim submitted under the Disputes clause.
- The skills required in allowing time extensions are the same as used in analyzing a delay claim.

When “trouble" initially appears and a claim seems to be inevitable, the matter is not merely placed in the hands of a Government lawyer to resolve. <u>Everyone who participated in the situation which has led to “the trouble” will be directly or indirectly involved</u>. Although the contracting officer is the one ultimately responsible for arriving and issuing the final decision, you may be responsible for:

- Assembling all of the information needed,
- Proposing a recommendation based on your analysis, or
- Identifying and consulting with those who will be:
  - conducting the legal review,
  - providing the technical analysis, and
  - responsible for making the final decision at a higher level.

In doing so, think about the problem from a broad perspective, remembering that any reviewer may know nothing about the details, may not have any knowledge of construction, or of the common terminology and practices peculiar to construction.

Source of Disputes

Scope. Many of the controversies stem from disagreements about the precise scope of the contract. Because of the nature of the construction contract, it is fertile ground, giving rise to controversies as a result of:

- Number of subcontractors and the careful interfacing required;
- Complexity of projects in terms of interrelationships;
- Lengthy contract documents and number of drawings;
- Weather conditions; and
- Unforeseen conditions such as those found underground.

Resolution of disagreements which lead to disputes may determine:

- Amount or quality of work to be performed;
- Price to be paid; and
- Identity of the party bearing responsibility for problems that occur.

Contract Language. When interpreting contract clauses, there are no sets of rules or well-defined analytical framework to follow as far as the courts and BCAs are concerned. You do need to ascertain the parties' intent by

- Performing an analysis of the language contained in the contract documents; and
- Examining the evidence, extrinsic to the contract documents, pertaining to facts and circumstances surrounding contract formation and performance.

If this effort fails to compel an applicable interpretation, then you should consult with your legal council to review the various rules of interpretation that the courts and boards have applied.

In the quest for seeking reasonable, logical interpretations, the courts and boards look to find the real meaning of the contract language and will reject interpretations which:

- are twisted or strained;
- would render any provision meaningless; or
- would cause a conflict.

Exhibit 9-5 outlines the interpretive rules which generally are followed by the courts and boards.

RULES IN AID OF CONTRACT INTERPRETATION

1. Read the contract as a whole.

2. Determine the order of precedence by reading the clauses.

3. If enumerated items are called for in one place and not in another, apply one of the two basic rules:

   • If the contract contains a specific list of items without words of qualification, the contractor may reasonably assume, absent other contract provisions to the contrary, that those items **not** listed **are not** included.

   • Where words of qualification are included, and where the meaning of a word is doubtful, it will take its coloring from, and be limited by, the words with which it is associated.

   For example: A pre-finished sheetrock ceiling covered with printed paper had to be painted by the contractor. The specification indicated that surfaces "finish painted" by the manufacturer need not be painted again. The contractor argued that the printed paper sheetrock ceiling was "painted" within the meaning of the specification which defined the term "painted" as: "... Used herein, includes emulsions, enamels, paints, stains, varnishes, sealers, cement latex filler, and other coatings, whether used as prime, intermediate, or finish coats". The board rejected this argument stating that the "printed paper sheetrock was in its normal state, not considered to be painted on with a coating, but applied through a manufacturing process." **

4. Consider evidence outside the contract document - extrinsic evidence:

   • Discussions and concurrent actions. This type of evidence consists of parties' discussions and actions occurring prior to the submission of bids or proposals, such as:

   - Requests for clarification;
   - Pre-bid conferences;
   - Pre-dispute interpretations;
   - Pre-dispute actions which may have led to evidencing an interpretation.
   - Failure to act, which was interpreted to be acquiescence.

   • Prior course dealing.
   • Custom and trade usage.

5. Post-Interpretation ambiguities.

   • Interpretation against the drafter of the specification.

   • Duty to seek clarification.

**C.W. Roberts Construction Co., ASBCA 12348, 68-1 BCA 6819 (1968)

Exhibit 9-5

Daily Report

Both the Government and the contractor must be in a position of being able to "rebuild" on paper, the events leading to the dispute or claim. Only by careful documentation can you protect the interest of the Government. One of your most important documents is the daily report, which

- is executed by the contractor,
- is submitted to the Government inspector on a daily basis, and
- provides a regularly kept business record of contemporaneous observations of events on the construction project.

Regardless of the format, the manner in which it is written is what is important. It is essential that persons reviewing the form understand its basic purpose and be aware of the key issues which might arise later.

Exhibit 9-6 provides a typical daily report form suitable for use by a construction manager under a separate contract, or by a prime contractor under a contract administered by Government personnel.

Since the form is agency specific, the one used by your office may vary slightly.

Claims

Upon receipt of a claim, the natural tendency may be for you to develop an adversarial attitude concerning the contractor. Although some claims may lack merit, not every one is fraudulent or over-inflated. When confronted with a contractor's demand for extra compensation, the best policy to follow is to

- Set personal feelings aside and give the claim careful, unbiased, thorough, and reasonable consideration.
- Solicit the A/E to provide information as to the validity of the claim and to obtain information through its on-site personnel. Take advantage of the technical expertise and familiarity of the project that the A/E offers.
- Solicit construction managers for recommendations, especially if there may be some A/E liability involved.

If you are dealing with an experienced contractor who becomes convinced that the arguments being presented are not persuasive, the contractor will usually make it known to you that a claim will be filed. This is referred to informally as "putting you on notice of a claim". However, <u>before being elevated to formal status as a claim</u>, the following must occur:

- Contractor must submit the claim in writing;
- It must be submitted directly to the contracting officer;

DAILY REPORT TO INSPECTOR		DATE
CONTRACT NO.	TITLE AND LOCATION	REPORT NO.
CONTRACTOR *(Prime or Subcontractor)*	NAME OF SUPERINTENDENT OR FOREMAN	
WEATHER - A.M.	TEMPERATURE - A.M. °F	
WEATHER - P.M.	TEMPERATURE - P.M. °F	

PRIME CONTRACTOR/SUBCONTRACTOR WORKFORCE (If space provided below is inadequate, use additional sheets)				1. LOCATION AND DESCRIPTION OF WORK PERFORMED
NUMBER	TRADE	HRS	EMPLOYER	

TOTAL WORK HOURS ON JOB SITE THIS DATE		2. WERE THERE ANY LOST TIME ACCIDENTS THIS DATE? ☐ YES ☐ NO IF "YES", A COPY OF THE COMPLETED OSHA REPORT IS REQUIRED
CUMULATIVE TOTAL OF WORK HOURS FROM PREVIOUS REPORT		
TOTAL WORK HOURS FROM START OF CONSTRUCTION		

3. INSPECTION AND/OR TESTING PERFORMED TODAY-FOLLOW WITH REPORT	4. LOCATION AND/OR ELEMENT OF WORK	5. REMARKS RESULTS OF INSPECTIONS/TESTING

6. SPEC. PARA. AND/OR DRAWING NO.	7. EQUIPMENT/MATERIAL RECEIVED TODAY TO BE INCORPORATED IN JOB (Description, Sizes, Quantity)	8. SUBMITTAL NO. OR CERTIFICATION	9. DATE APPROVED

Exhibit 9-6

10. SPEC. PARA AND/OR DRAWING NO.	11. LOCATION AND DESCRIPTION OF DEFICIENCIES (Materials, Equipment, Safety, and/or Workmanship) ACTION TAKEN OR TO BE TRKEN

12. DEFICIENCIES CORRECTED THIS DATE	REFERENCE	
	REPORT NO.	COMPLIANCE NOTICE NO.

CONSTRUCTION AND PLANT EQUIPMENT LEFT ON JOB SITE UNTIL USE IS COMPLETED

13. DESCRIPTION	DATE FIRST ON JOB (First time only)	THIS DATE	HOURS IDLED	DATE OF FINAL REMOVAL FROM JOB SITE

14. CONSTRUCTION AND PLANT EQUIPMENT NOT LEFT ON JOB SITE PERMANENTLY
(This will include pickup trucks and mobile mounted items, such as compressor, that are also used for transportation to and from the job)

DESCRIPTION	HOURS IDLED	HOURS IDLED

15. REMARKS (Include direction received from visitors, compliance notices received, errors and/or omission in P/S; petinent information)

CONTRACTOR/SUPERINTENDENT DATE

16. CONSTRUCTION REPRESENTATIVE'S REMARKS AND/OR EXCEPTIONS TO THIS REPORT

CONSTRUCTION REPRESENTATIVE

Exhibit 9-6 (Continued)

INSTRUCTIONS FOR COMPLETING THE DAILY REPORT FORM

Blocks 1 through 14 are completed by the contractor's superintendent on the job. Block 15 is reserved for remarks.

Block 16 provides a space for the Government's comments and is completed by the Government representative/inspector or construction manager.

The heading of the form provides additional information which is also to be completed by the contractor's superintendent, such as the contract number, title of the project, location, the name of the superintendent, the date, as well as the temperature and weather information for the day.

Block # 11: Must briefly describe the deficiencies and include the date that the deficiencies will be corrected.

The balance of the blocks to be completed are self-explanatory.

Suggested Distribution of the Form: (Five part)

- Superintendent (White) (Original and 1st copy)
- Contractor's home office (Pink).
- Government designated representative. (Blue)
- Contracting Office (Yellow).

What is important is **HOW and WHAT i**nformation is entered on the form. To illustrate, consider the difference between the entries provided below:

BLOCK #1.

Entry Number 1: "Poured l/2 slab in area A"; or

Entry Number 2: "Poured and finished l/2 slab of area "A". This area now ready for framers."

Consider the extent to which an entry may recognize work being done while still identifying problems with other related work. Compare the following two entries:

BLOCK # 1.

Entry Number l: "Performed grading in the northwest corner of the site."
Entry Number 2: "Performed grading in the northwest corner of the site. The Government is inspecting and determining the best method for dewatering remaining portions of the site."

Exhibit 9-6 (Continued)

INSTRUCTIONS FOR COMPLETING THE DAILY REPORT FORM

Still another important factor which can be noted on daily reports is the availability of labor. For instance, often a mechanical or electrical contractor will claim that their work was inefficient because of work by others. It is important to anticipate problems because of interfacing, and annotate the daily reports accordingly. With this in mind, consider the two entries described below:

BLOCK # 1. Contractor's entry:

Entry Number 1: "Electricians are running conduit; mechanical contractor is insulating duct."; or

Entry Number 2: Electrical contractor installing conduit runs in portions of corridors in buildings "F" and "G". Mechanical contractors running duct and insulating duct in corridors "B" and "C";

BLOCK # 16 Government Inspector's Comments:

Duct insulating crew showed up late today and quit early. Much more work available here for them to do than they are accomplishing."

The Government may provide comments in Block 16 or by issuing a separate Government Daily Inspection Report Form. The use of the latter should be noted on the contractor's form when submitted. When comments are added to the daily report, a copy must be provided to the contract manager, or the contractor, whichever is appropriate.

An important comment to make in Block 16 relates to the factual issues affecting the sequence in which the work is performed. Most claims in construction involve changes in work sequence. As a result, Government personnel should document the effect of all changes, delays, or conditions which cause this type change. Government personnel can effectively defeat a claim if they can demonstrate that the contractor's work sequencing was governed **not** by Government actions, but by subcontractor difficulties.

Exhibit 9-6 (Continued)

- It must assert any specific rights or basis for the specific monetary relief being sought;
- Contractor must request a contracting officer final decision;
- Claim must be **properly certified** if in excess of $50,000.

Proper certification means:

- Statement that the claim is made in good faith;
- Supporting data are accurate and complete; and
- Amount requested accurately reflects the contract adjustment for which the contractor believes the Government is liable.

Threshold

To determine the dollar amount of a claim, you must aggregate the increased and decreased costs involved.

FAR 33.207(b)

For example: A contractor, requesting a net price increase of $10,000 for a change involving $40,000 of added work and $30,000 of deleted work, would be required to certify since the combination of the two amounts would exceed the $50,000 threshold.

The filing of a claim and the availability of remedies are not one-way streets. The Government also may file claims "under the contract" and seek remedies against the contractor for reasons such as:

- Defective performance,
- Violation of statutes (civil and criminal),
- Violations of the regulations, or
- Demands for excess costs in reprocurement as a result of default.

In order to file a claim against the contractor, the contracting officer must

- be familiar with all of the available remedies and what actions are necessary, and
- fully understand the principal elements of each type of claim, their defenses, and how to invoke the best remedy.

Guidelines are found in Exhibit 9-7 on what steps to take when the Government wishes to file a claim against a contractor. You will find them similar to a contractor's claim, only in reverse.

Subcontractor Claims

Subcontractors rights are very important in construction contracting because typically most of the work is performed by subcontractors. However, subcontractors have no privity of contract with the Government. Therefore, a subcontractor cannot file a direct claim and instead must file its claim through the prime. An exception is made for SBA 8(a) contracts. Even though the prime contractor is technically SBA and the subcontractor is the 8(a) firm, 8(a) contractors are allowed to submit claims directly to the contracting officer.

GUIDELINES IN FILING A CLAIM AGAINST A CONTRACTOR

- Take prompt action to determine the claim's dollar amount and collect it.
- The claim must be thoroughly researched and reviewed before it is asserted. Have it reviewed by engineering, accounting and legal experts in order to assure that the claim is well founded.
- The demand for payment should contain a concise statement of the claim. Where there is reason to believe that negotiations may be futile, or there is reason to expedite collection, the demand should be cast in the form of a final decision.
- If there are any deferment agreements make sure that they are in agreement with agency policy.
- Make sure that all Government claims are represented in bankruptcy proceedings.
- Do not overlook the possibility of asserting common law damage claims as:
  - ☞ Supplement to an excess reprocurement cost claim;
  - ☞ Delay in performance; and
  - ☞ Defective performance not covered by the inspection and warranty clauses.
- Final decisions are prepared in the same manner as in a contractor claim, and include, at least, a statement of the original contract requirements, the conduct which gave rise to the liability, and the amount and nature of the price adjustment or damages claimed. It must state that it is issued under the Disputes clause and contain rules concerning the appeal process.

Exhibit 9-7

Claim File

Once a claim has been identified it is never too early for you to begin preparing the claim file. The assembly of evidence must be undertaken if the case goes to litigation, so it is worth doing at the outset, and worth doing well. Evidence can be obtained from many places and take many forms.

The documents submitted by both parties constitute the appeal file. Exhibit 9-8 is a checklist of some of the important items that need to be assembled in order to research and prepare a claim file. Check your agency regulations for the prescribed format to use.

PREPARATION OF THE CLAIM FILE

(a) The contract specification and drawings	Include all modifications.
(b) Correspondence files	As a minimum, these should include the engineering, preaward, contract administration and legal files.
(c) Working drawings	Of particular importance are those which were originally approved, plus those which have incorporated all of the changes. An analysis as to why changes were made, and the dates.
(d) Inspection Records	Daily records and logs by inspectors and contractor personnel.
(e) Memorandum of meetings	Include only those pertinent to the claim.
(f) All Progress charts and information concerning progress.	CPM and Bar Charts, originals, and all changes. These are especially useful in establishing dates of changes.
(g) Copy of the Preconstruction conference notes of meeting.	These may be particularly useful because these notes are frequently of critical value in establishing expectations and understandings of both parties with respect to a particular provision of the specifications, or anticipated problem discussions which were held.
(h) Copy of contract clauses	These are important for general reference purposes and should be reviewed during the course of the claims preparation. In some cases, the contract may incorporate by reference a clause which should be studied in full text.
(i) Copy of all photographs taken.	Photographs can and should be used to document key points wherever possible.
(j) Copies of pertinent logs.	Logs, such as change order logs, or submittal approval logs are often beneficial.
(k) Copies of interim or final performance evaluations of the contractor.	Interim performance evaluations are sometimes issued during the contractor's performance. These will point out weaknesses.

Exhibit 9-8

Delay Claim

There are three main facets to a delay claim:

1. Entitlement;
2. Schedule impact; and
3. Cost impact.

Conceptually the analysis process may be categorized into five phases:

- Identifying the issue(s),
- Performing the schedule impact analysis,
- Analysis of the project documentation,
- Performing a cost analysis and damages apportionment, and
- Preparing a report.

The analysis and evaluation of a construction delay claim is a challenge to all parties involved:

- It is time consuming, requiring patience and persistence.
- You must rely upon a complete analysis of the schedule, identifying all delays, determining if they fall on the critical path or if they are concurrent.
- You must identify the causation of any concurrent delays.

Analysis and evaluation are important in proving or refuting delay claims because they provide a detailed means for comparing and measuring time and intent.

The analysis should be performed by someone who is an expert at performing network analysis. At a minimum, the contract specialist must have knowledge of the procedure and how it is accomplished. In some offices the contract specialist, with technical assistance, is expected to perform the task.

The **"as-planned" schedule** is a key document in the Government's defense. The contractor's "as-planned " schedule may be reflected in a bar chart, CPM schedule, or a similar schedule type.

The **"as-built" schedule** is similarly useful and must be analyzed. Normally you must create an "as-built" schedule from the files and documents at hand. The information usually can be obtained from:

- Schedule updates
- Job meeting minutes
- Logs
- Daily Reports to the Inspector
- Narrative progress reports
- Correspondence
- Progress photographs

The "as-built" schedule should also be compiled by a person familiar with construction scheduling and record keeping. In preparing the "as-built" schedule, it is important that the activities correspond to those contained in the "as-planned" schedule. Any differences in

- sequence,
- duration, and
- continuity of work

identifies specific work activities, usually major, which should be examined in more detail for delays.

Analyzing Claims

Assuming that the contractor gives you a complete claims package, the general procedure which should be followed in analyzing a claim is outlined in Exhibits 9-9 and 9-10.

INITIAL CLAIM REVIEW

1. Read the contractor's claim and identify the issues involved. Give your undivided and impartial attention to the basis of the claim.
2. Review the contractor's documentation to dxevelop a chronology for each of the separate issues involved.
3. Review the contract file and other contract documents to further develop or substantiate the chronology of events. Perform a quick analysis of the CPM/Bar Charts if applicable to a delay.
4. Review the relevant contract clauses and identify the kind and type of information called for.
5. Return to the contractor's letter and identify each of the allegations made. Using the data provided by the contractor, and data you have collected yourself, prepare a point-by-point response to each of the allegations.

Exhibit 9-9

DETAILED ANALYSIS OF THE CLAIM

Step One: Based on the initial analysis, ascertain whether the basic facts alleged are true, not true, or partially true.

Step Two: A technical audit of the claim must be made, which should consist of a thorough analysis of the specifications, both as originally written and as changed. It should be performed, when possible, by the persons connected with the initial drafting of them, or by someone who has the technical expertise to do so. If drafted by an A/E, request an analysis from the A/E's point of view.

Step Three: Have a technical expert perform an analysis of the engineering approach which was employed by the contractor. Establish the reasonableness, from an engineering standpoint, of the additional time and man-hours expended.

Step Four: Perform a cost analysis (including an audit if applicable)* of the costs claimed by the contractor to verify that:

- ☞ The costs are actually recorded on the contractor's books in accordance with generally accepted accounting principles;
- ☞ They are allowable and allocable to the contract as claimed; and
- ☞ Their recovery is not prohibited by law or regulation.

Step Five: Subject the claim to a legal analysis.

*Note: The Defense Contract Audit Agency or an Agency contract audit office.

Exhibit 9-10

Exhibit 9-11 provides a check list to serve as a reminder of the issues to be reviewed prior to meeting with the contractor. It is particularly useful in briefing team members and planning an agenda in preparation for negotiations to settle a claim.

FACTOR ANALYSIS CHECK LIST FOR A CLAIM

Contract Number_____Date_____
Government Estimate_____Contractor's Proposal_____

• Job size, points, and areas of work. (Brief Description)
_____
_____

• Plans and specifications have been examined. _____

• Quantity and quality of materials has been verified. _____

• Labor and equipment usage and cost. Cost $_____

• List idle time, wasted time, or dragged out time. (list dates extracted from the daily reports)_____
_____

• List possible over-manning or over-equipping:_____
_____

• Materials, labor, equipment and overhead over consumption or diversions into this change:_____
_____
_____

• Contractor diligence and production efficiency:_____
_____
_____

• Work environment factors:
___ Dust
___ Weather
(Remarks)_____
___ Temperature
___ Wind
___ Access and congestion
___ Quality and availability of labor:_____
___ Superintendency
___ Overhead support
___ Supplier support
___ Government cooperation
___ Morale
• Quality of work?_____
___ CQC
___ Contractor on schedule?
___ Contractor behind schedule?
By _____number of days.
• Number of change orders to date_____
• Audit available?_____

Exhibit 9-11

Final Decision and Appeal

A contracting officer's final decision under the Disputes clause is the last resort after efforts to settle the matter by an agreement have failed.

The contractor will usually submit the formal claim to the appropriate Board of Contract Appeals (BCA) as soon as possible, since the Disputes clause specifies that interest on a claim runs from the date of submission.

If the contractor elects to file a claim in the Claims Court, it must appeal within one year after receipt of the final decision.

If a BCA or the Claims Court decides in favor of the contractor, the contracting officer must negotiate an equitable adjustment, unless the board or court has already established the dollars and time adjustment in the decision. In any event, a contract modification is the vehicle which you would use in order to implement the board's or court's decision.

The Government must pay interest on a contractor's claim on the amount found due and unpaid, computed from the date the contracting officer receives the claim or the date payment otherwise would be due, if that date is later, until the date that payment is made.

9.2 Selection of a Remedy

When a contractor just doesn't perform in accordance with the contract, you have many remedies available to get performance back on track; some are informal, others are more formal.

The basic objectives in the process of remedy selection are:

- Selecting a remedy that minimizes the impact on the contractor's performance problems concerning quality, schedule and cost;
- Obtaining reasonable consideration for any relief granted the contractor from the contract's original terms and conditions;
- Documenting all decisions made with the contractor which will be sufficient to support the Government's position in a dispute or any court proceedings; and
- Correctly following all procedures prescribed by your agency in the selection of the remedy.

The contracting officer must know all of the remedies available. These may be divided into broad categories such as:

- Preventive
- A/E Liability
- Standard Clauses
- Cure or Show Cause Notice

9.2.1 Preventive Remedies

Of all the preventive remedies available, the most powerful and most effective may be the actions of a contracting officer. Since you, as a member of the contract administration team, are virtually the eyes and ears of the contracting officer on a day to day basis, your actions, decisions, and agreements may well be the best, fastest, and least expensive, as well as the most practical means of solving problems as they develop.

The right to withhold money from payments to a contractor is covered ① by clauses in the contract and ② as an implied right of the Government. However, the amount withheld must be a reasonable amount for the financial impact of the contractor's nonperformance on the Government. The clauses and/or laws permitting withholding are:

- Payments Under Fixed Price Construction Contracts,
- Davis Bacon Act, and
- Contract Work Hours and Safety Standards Act.

When the contractor has assigned payments to a financial institution (Assignment of Claims), no setoffs are allowed. Performance bond sureties are also protected from setoffs, i.e. the transfer of an obligation from one contract to another to satisfy a debt.

You may find benefit in the use of price reduction in contract price as a remedy. Listed in Exhibit 9-12 are some examples of the circumstances in which this remedy would be appropriate.

PRICE REDUCTION AS A POSSIBLE REMEDY

- Defective cost or pricing data.
- Failure to comply with cost accounting standards.
- Recovery of repair or replacement costs for defective work which is not corrected by the contractor and not discovered prior to acceptance under the standard inspection clause.
- Deductive modifications in lieu of termination.
- Acceptance of nonconforming work.

Exhibit 9-12

9.2.2 Standard Clauses

Most Government contracts contain a number of standard clauses granting compensation or other remedies to either the contractor or the Government, or both. Remedy granting clauses have been broadly construed to cover situations not expressly falling within their scope.

Exhibits 9-13 and 9-14 illustrate a brief overview of some of the most frequently used remedy clauses in the construction contract. Note that in some instances the same clause grants different remedies to both the Government and contractor.

REMEDY GRANTING CLAUSES IN CONSTRUCTION CONTRACTS FOR THE GOVERNMENT

Government Remedy Clauses:	Remedy Provisions:
• Withholding of Funds (FAR 52.222-7) Davis Bacon Act (FAR 52.222-6) Contract Work Hours and Safety Standards Act (FAR 52.222-4)	Allows that the Government may withhold funds due the contractor for labor violations.
• Material & Workmanship (52.236-5)	Provides the Contracting Officer with authority to require the contractor to remove from work any employee the CO determines to be incompetent, careless or otherwise objectionable.
• Inspection of Construction (52. 246-12)	The Government may charge the contractor any additional costs for reinspections required. The contractor must promptly repair or replace rejected work without charge. Failure to promptly correct rejected work, allows the Government to have the work done by others and charge the contractor the cost of doing so.
• Protection of Existing Vegetation, Structures, Equipment, Utilities and Improvements. (52.236-9)	If contractor fails to correct damages, the Government may perform the work and charge the contractor.
• Changes Clause (52.243-4)	Changes clause gives the Government a remedy for situations when a change is needed to be made within the scope of the original contract.
• Suspension of Work (52.212-12)	In order to allow time to consider the matter at hand, provides the vehicle to suspend performance as a remedy when the Government finds that an alteration or change is needed.
• Warranty of Construction (52.246-21)	Protects the Government from the cost of correcting defects. Work performed must conform to the contract and be free of any defect. If the contractor fails to remedy any failure, defect or damage, the Government has the right to remedy the failure at the contractor's expense.
• Liquidated Damages - Construction (52.212-5)	Provides that damages for late performance, which are preset in amount and specified in the contract, may be assessed.

Exhibit 9-13

REMEDY GRANTING CLAUSES IN CONSTRUCTION CONTRACTS FOR THE GOVERNMENT	
Government Remedy Clauses:	**Remedy Provisions:**
• Disputes (52.233-1)	Disallows contractor claims which are not supportable due to misrepresentation or fraud. Requires the contractor to pay the Government an amount equal to the fraudulent claim or fraudulent portion thereof, plus the Government's cost in handling the claim. Provides a vehicle for the Government to file a claim against the contractor. Also provides that the contractor must continue performance pending claim resolution.
• Default (52.249-10)	Provides the Government the right to terminate when a contractor is in breach of contract. The breach may be actual or anticipatory.
• Termination for Convenience (52.249-2, Alt. I; III) Termination (Cost-Reimbursement) (52.249-6, Alt. I; III)	Provides the Government the right to terminate for its convenience when the requirement is no longer required. Simply stated, it provides the right of the Government to refuse to continue with contract performance.
• Use and Possession Prior to Completion (52.236-11)	Provides the Government the right to take early possession prior to completion without acceptance of any work under the contract.
• Site Investigation and Conditions Affecting The Work (52-236-3)	Relieves the Government of responsibility for any understanding reached by the contractor, or representations made concerning conditions which can affect the work by any of its officers or agents before the execution of the contract, unless that understanding or representation is expressly stated in the contract.
• Bid Guarantee (52.228-1)	Provides that in the event the contract is terminated for default the bidder is liable for any cost of acquiring the work that exceeds the amount of the bid.
• Payments Under Fixed Price Construction Contract (52.232-5)	Can withhold up to 10% for failure to perform, or for overpayments. The contractor must pay the Government an amount equal to interest on the unearned amount from the date of receipt of the unearned amount.
• Buy American Act - Construction Materials (52.225-5)	Remedy for failure to comply are possible debarment procedures. The contractor must remove and replace all material or equipment which does not comply.
• Performance of Work by the Contractor (52.236-1)	Considered a preventive remedy to assure adequate interest in, and supervision of, work involved in larger projects. The contractor must perform a significant amount of work with its own forces. (Ordinarily not less than 12 percent.)

Exhibit 9-13 (Continued)

REMEDY GRANTING CLAUSES FOR THE CONTRACTOR	
Contractor Remedy Clauses:	**Remedy Provided**
• Changes Clause (52.243-4)	Grants compensation to the contractor if the Government orders additional work. Provides adjustment in contract price and/or time for in-scope changes made in the contract. Also allows for compensation for constructive changes or those considered to fall under the Cardinal Change doctrine.
• Suspension of Work (52.212-12)	If the Government delays the contractor for an unreasonable time compensation may be granted for costs incurred, provided the contractor meets the criteria.
• Differing Site Conditions (52.236-2)	If the Contractor encounters unforeseen physical conditions the contractor may be entitled to an equitable adjustment.
• Government Furnished Property (52.245-3)	Provides compensation in some cases if GFP is delivered late or is not suited for the purposes intended.
• Value Engineering - Construction (52.248-3)	Contractor must be compensated for cost saving ideas.
• Termination for Convenience (52.249-2)	Provides for compensation in the event the contract is terminated for the Government's convenience.
• Prompt Payment for Construction Contracts (52.232-27)	Contractor may collect interest if bills are not paid promptly.
• Patent Indemnity - Construction Contracts (52.227-4)	Protection from lawsuit for patent infringement.
• Disputes (52.233-1)	Provides the vehicle for the contractor to file a claim in seeking an equitable adjustment. All disputes arising under or relating to the contract are resolved under this clause. Provides that the Government must pay interest on claims.
• Use and Possession Prior to Completion (52.236-11)	Contractor is relieved of the responsibility for loss or damage to the work resulting from the Government's early possession. If the early possession causes delays, or causes additional expense an equitable adjustment may be made.
• Default (52.249-10)	The Government may not terminate the contractor's right to proceed if the delay in completing the work arises from unforeseeable causes beyond the control and without the fault or negligence of the contractor.
• Payment Under Fixed Price Construction Contracts (52.232-5)	For civilian agencies flexibility on amount of retainage. For defense agencies restricted to 10%. Contractor may use failure to make progress payments with reasonable promptness as a basis for claim.
• Excusable Delays (52.249-14)	Provides protection when delays are beyond the contractor's control.

Exhibit 9-14

Liquidated Damages

Closely connected with the subject of delays (See Chapter 7), is the topic of liquidated damages (See Chapter 2.4). Such damages are also used in supply contracts, but they are especially important in construction.

The LIQUIDATED DAMAGES clause (See Exhibit 9-15) affords the Government an exceedingly valuable remedy in those instances where a construction contractor's delay is caused by the fault of the contractor.

The decision to collect liquidated damages has some advantages for both the Government and the contractor:

- Unlike actual damages, the contractor knows from the beginning that damages will be at a predetermined rate.
- Contract administration is simpler since amounts are pre-established.
- A liquidated damages schedule need not be tailor-made for each contract.
- Most agencies have guidelines that vary damages proportionately with the value of the work which is published for use.
- The boards and courts generally support the amounts established as long as they are reasonable.

LIQUIDATED DAMAGES - CONSTRUCTION (APR 1984)

FAR 52.212-5

(a) If the Contractor fails to complete the work within the time specified in the contract, or any extension, the Contractor shall pay to the Government as liquidated damages, the sum of $_____ [Contracting Officer insert amount] for each day of delay.

(b) If the Government terminates the Contractor's right to proceed, the resulting damage will consist of liquidated damages until such reasonable time as may be required for final completion of the work together with any increased costs occasioned the Government in completing the work.

(c) If the Government does not terminate the Contractor's right to proceed, the resulting damage will consist of liquidated damages until the work is completed or accepted.

Alternate I (Apr 1984) - If different completion dates are specified in the contract for separate parts or stages of the work, revise paragraph (a) of the clause to state the amount of liquidated damages for delay of each separate part or stage of the work.

Exhibit 9-15

Liquidated damages are collected for the period between the contract completion date (CCD) and the time of contract acceptance. Where different completion dates for separate parts or stages of the work are specified in the contract, the liquidated damages clause should be revised to provide for damages for the delay of each separate stage:

FAR 52.212-6

With phased projects you should use Alternate I (See Exhibit 9-15) and the TIME EXTENSIONS clause.

Contracts for multiple items, such as houses, may include a price per day or per unit, even though the contract may have only one completion date. Agency guidelines usually provide more information on establishing liquidated damages for **phased projects**.

In the administration of **small construction projects**, you must watch closely that liquidated damages do not continue to accrue to the extent that they closely match or exceed the total value of the contract. On small projects the forbearance period for late performance should be commensurate with the dollar value of accruing liquidated damages so that damages do not become a penalty by their dollar amount.

Once the liquidated damage rate has been established it should not be changed. To do so may give away your rights to use this as a remedy to assess **ANY** liquidated damages.① Once a contracting officer reduces the daily rate of liquidated damages, the Government has acknowledged that the rate was unreasonable and has lost the right to withhold any liquidated damages:

- However, if phased interim completion dates are specified, the liquidated damages must be adjusted accordingly.
- Also, if the Government decides to take early possession prior to completion, which was not called for in the contract, an agreement as to the remaining liquidated damages should be reached followed by the issuance of a SF 30 Supplemental Agreement reflecting the remaining liquidation damages.

"Liquidated damages will not be assessed after the date on which the work is substantially completed".②

① This statement is based on a case where the Government awarded a contract to build the foundations for a radar tower. The contract stipulated that the contractor would be liable for liquidated damages of $1820 per day for late completion. The contractor finished the work 98 days behind schedule. The Contracting Officer determined that the daily rate previously established was too high and reduced it to $220 per day. The contractor challenged the withholding of that amount.

The board concluded that the Government had lost the right to assess any liquidated damages against the contractor, even though the rate of $220 per day was a fair and reasonable approximation of the actual damages the Government suffered as a result of the contractor's delay. In instances whereby the Government elects to occupy a facility prior to contract completion, there is an exception to the rule that established liquidated damages rates should not be changed during the life of the contract. Liquidated damages should be adjusted accordingly at the time of occupancy. These issues were discussed in depth in Chapter 6 entitled "Day to Day Contract Administration".

② Lindwall Construction Co., ASBCA 231148, 79-1 BCA 13,822 1979). (In this case it was because the building was available for beneficial occupancy.)

The **Substantial Completion Rule** is applied primarily on construction contracts where

- substantial completion is held to have occurred, and
- project is available for its intended use.

Board and court decisions appear to place more emphasis on the availability of the facility for its intended use, rather than the application of any formula, such as percentages.

To compute liquidated damages for late contractor-caused delivery, you subtract the adjusted CCD from the date of acceptance or beneficial occupancy date. Use Exhibit 9-16 to convert dates to numbers. Remember to add an extra day during leap years. After computing liquidated damages you must issue a SF30 to adjust the contract price.

Example 1: Work finished on December 10 but the properly extended CCD is October 16.

Date work accepted	*December 10*	*344*
Adjusted CCD	*October 16*	*289*
Difference in days		*55*

Example 2: Work finished on January 23 but the adjusted CCD is November 15..

Date work accepted	*January 23*	*23+365 =*	*388*
Adjusted CCD	*November 15*		*319*
Difference in days			*69*

Please note the adjustment for the change in years.

To compute liquidated damages for a defaulted contractor, you proceed as above and then add the days it takes to make a reprocurement award and days for the new CCD. The original contractor is not responsible, however, for ① Government delays in working toward awarding a reprocurement contract or ② delays by the reprocurement contractor. The general rule of thumb is that 90 days is a reasonable period to award the reprocurement contract. This will vary in different contract situations and may be longer if the original contractor or the bonding company delay the reprocurement process.

XYZ Construction was defaulted on February 28 after failing to meet the adjusted CCD of January 31. The reprocurement contract was awarded on June 10 and it required completion of all work by November 30. The second contractor completed work on December 11.

Damages are incurred starting January 31. It took from February 28 to June 10 to award the reprocurement contract. This is 103 days. Since this is more than the 90 day rule of thumb, assess damages for 90 days of reprocurement. The original contractor's liability ends on the CCD of the reprocurement contract, or November 30. Adding the damages:

January 31 to February 28	*28*	*Damages during Government forbearance*
February 28 to June 10	*90*	*Adjusted for excess time.*
June 10 to November 30	*173*	*Damages end at CCD*
Total days	*291*	

JULIAN DATE CALENDAR

DAY	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	DAY
1	001	032	060	091	121	152	182	213	244	274	305	335	1
2	002	033	061	092	122	153	183	214	245	275	306	336	2
3	003	034	062	093	123	154	184	215	246	276	307	337	3
4	004	035	063	094	124	155	185	216	247	277	308	338	4
5	005	036	064	095	125	156	186	217	248	278	309	339	5
6	006	037	065	096	126	157	187	218	249	279	310	340	6
7	007	038	066	097	127	158	188	219	250	280	311	341	7
8	008	039	067	098	128	159	189	220	251	281	312	342	8
9	009	040	068	099	129	160	190	221	252	282	313	343	9
10	010	041	069	100	130	161	191	222	253	283	314	344	10
11	011	042	070	101	131	162	192	223	254	284	315	345	11
12	012	043	071	102	132	163	193	224	255	285	316	346	12
13	013	044	072	103	133	164	194	225	256	286	317	347	13
14	014	045	073	104	134	165	195	226	257	287	318	348	14
15	015	046	074	105	135	166	196	227	258	288	319	349	15
16	016	047	075	106	136	167	197	228	259	289	320	350	16
17	017	048	076	107	137	168	198	229	260	290	321	351	17
18	018	049	077	108	138	169	199	230	261	291	322	352	18
19	019	050	078	109	139	170	200	231	262	292	323	353	19
20	020	051	079	110	140	171	201	232	263	293	324	354	20
21	021	052	080	111	141	172	202	233	264	294	325	355	21
22	022	053	081	112	142	173	203	234	265	295	326	356	22
23	023	054	082	113	143	174	204	235	266	296	327	357	23
24	024	055	083	114	144	175	205	236	267	297	328	358	24
25	025	056	084	115	145	176	206	237	268	298	329	359	25
26	026	057	085	116	146	177	207	238	269	299	330	360	26
27	027	058	086	117	147	178	208	239	270	300	331	361	27
28	028	059	087	118	148	179	209	240	271	301	332	362	28
29	029		088	119	149	180	210	241	272	302	333	363	29
30	030		089	120	150	181	211	242	273	303	334	364	30
31	031		090		151		212	243		304		365	31

Exhibit 9-16

Material and Workmanship

This clause (See Chapter 5.3) requires that all work be executed in the most workmanlike manner by qualified, careful and efficient mechanics in strict accordance with the drawings and specifications.

The two main remedies flowing from this clause are:

1. Use of new equipment, material, and articles.

   This part of the clause has been held to obligate a contractor to use recently-manufactured cable and to bar the use of unused surplus cable which had been previously manufactured and stored for five years.

2. Removal from the workplace of any employee deemed incompetent, careless, or otherwise objectionable.

   Should there be an habitual violator of workmanship standards and/or safety requirements, the case must first be discussed with the contractor's superintendent. If corrective action is not taken, you may make a recommendation that the superintendent be removed.

Superintendence by the Contractor

This clause (See Chapter 5.4) provides the vehicle by which a superintendent may be removed for failing to perform in a satisfactory manner. It is important that your findings and file documentation support a contracting officer's determination to remove. The text of the clause is provided in Exhibit 9-17.

SUPERINTENDENCE BY THE CONTRACTOR

FAR 52.236-6

At all times during performance of this contract and until the work is completed and accepted, the contractor shall directly superintend the work or assign and have on the work a competent superintendent who is satisfactory to the Contracting Officer and has authority to act for the contractor.

Exhibit 9-17

Inspection of Construction

Whereas the Material and Workmanship clause deals primarily with materials used, the Inspection of Construction clause (See Exhibit 8-18.) addresses workmanship and testing. It is the basis upon which all quality assurance and quality control activities by the Government and the contractor are conducted relative to work performed under the contract.

The Government is generally entitled to **strict compliance** to the specifications as it helps ensure that:

- Performance will satisfy the Government's needs;
- Public funds will not be improperly expended; and
- Integrity of the competitive bidding system will not be compromised.

The Government's remedies for the contractor's failure to strictly comply may depend upon:

- Timeliness of the notification, and
- Relationship of the cost of correcting the defects to the Government's damage.

When potential noncompliance is discovered before final completion, the Government has broad latitude.

- The ideal time to invoke a remedy for defect may be at the time of initial approval of shop drawings and samples which are submitted prior to beginning performance.
- After the work has been accomplished it becomes more difficult to enforce the strict compliance rule in construction.

However, in instances where health, safety and/or security are involved, strict compliance is necessary, and will normally be upheld. Exhibit 9-18 lists some of the elements that may require strict enforcement.

Whenever a contractor is provided the opportunity to correct rejected work, the contractor should be cautioned not to add to, or build on defective work.

AREAS THAT MAY REQUIRE STRICT COMPLIANCE ENFORCEMENT

➪ Fire Alarms	➪ Elevators
➪ Boilers	➪ Automated Equipment Controls
➪ Security Systems	➪ Sprinkler System
➪ Escalators	➪ High Voltage Electrical Equipment
➪ Medical Systems	➪ Welding

Exhibit 9-18

The remedy of obtaining a **price reduction for nonconforming work** is closely associated with the strict compliance rule. For this reason you may find this remedy has limited usage. Repeated adjustments may also begin to undermine the credibility of the contract specifications.

Examples of instances of accepting work with an adjustment in contract price are:

- Those that involve minor cosmetic flaws which do not impair the use;
- When rework costs are excessive and use is not impaired;
- When time does not permit correction and the facility is suitable for intended purposes; or
- In a situation where a less expensive construction technique may be used in lieu of the required method specified in the contract, and result would not impair its use.

Unless otherwise stated in the contract through a special warranty clause, the Government loses all remedies against the contractor after acceptance.

There is an exception to this in the Inspection of Construction clause which provides an exclusion by adding the words

> "except for **latent defects, fraud, or gross mistakes** amounting to fraud".

If a defect can only be discovered by operation (such as in equipment or systems) for an extended period of time, it may be considered latent (such as some types of installed machinery found in dams, steam plants, etc.).

Exhibit 9-19 illustrates some typical problems in construction under the Inspection clause.

EXAMPLE OF PROBLEMS WITH SUGGESTED REMEDIES UNDER THE INSPECTION CLAUSE	
PROBLEM	**REMEDY**
• Fire alarm does not function properly. Fire alarms protect the safety of building occupants. Strict compliance with the specification is a necessity.	**Strict compliance** must be insisted upon in matters concerning safety. Direct the contractor to correct the problem.
• Drywall installed is not in accordance with the specification but may be acceptable if building codes have been met, and no other problems are evident.	Consider an appropriate adjustment even though the installed material does not conform. It may be less expensive, but considered satisfactory for the purpose intended. You may negotiate a **price reduction for the nonconforming work**.
• Pumps called for by the specification which were installed may conform to contract requirements but may not do the job. A more in-depth review is required in order to be certain.	Do nothing as far as requiring replacement by the contractor (until reviewed). The contractor should be advised in writing that additional time is needed to make a a technical analysis. Request A/E, designer, or drafter of the specification to revalidate the pump capacity, and reaffirm that it can "do the job" called for.
• The contractor is notified that inspections and tests are to be conducted on a specific date. The Government found that, contrary to what had been reported as ready for testing and acceptance, the work was **not** ready at the time specified.	Charge the contractor for costs of the added inspection and testing which must be made at a later date.
• Contractor installed copper tubing in a building which was subsequently sealed by a brick wall. The Government does not know if copper tubing was installed, or if it met the specification as to configuration and size.	Consider requiring the contractor to tear out a portion of the brick wall concealing the tubing so that inspection can establish that the material conforms to the specification. If the tubing is nonconforming, the contractor must bear all the replacement costs; if the material is conforming, the Government must assume the costs associated with the tear down.

Exhibit 9-19

Warranty of Construction

The WARRANTY OF CONSTRUCTION clause (See Exhibit 9-20) requires that

1. Contractor, subcontractors, manufacturers, and suppliers warrant that all work under the contract conforms to the contract specifications and contains no defect in workmanship, material, or design for a period of one year after final acceptance; and
2. Contractor secure and turn over to the Government all transferable guarantees or warranties on equipment, materials or installation which are furnished by any manufacturer, supplier, or installer in the ordinary course of their business or trade.

Even though a commercial guarantee or warranty may overlap in part with the contractor's obligations, it does not relieve the contractor of the contractual guarantee.

The prime contractor's **one-year warranty** under the clause commences on either:

- Final acceptance of all contract work, or
- Upon taking possession of any part of the work before final acceptance.

When remedies are specified in a warranty clause, the Government is limited to only those remedies listed. Anything that requires corrective work during the one year warranty period is further warranted for an additional year after completion of the remedial work.

Under the construction warranty, it is incumbent upon the party alleging entitlement to establish a claim by offering conclusive proof.

1. If you contend on behalf of the Government, that the contractor fails to comply with the specification, it is your responsibility to prove the fact.
2. Contractor may counter that it was not the work that caused the defect, alleging instead that the defect is due to faulty design. (See the remedy under A/E Liability).
3. Contractor would then be burdened to prove the counter allegation of faulty design.

It is not always easy to determine what caused a defect.

For Example: Suppose that you have a report from an inspector that the shoulders of a new road are eroding. What kinds of things would you consider before requesting the contractor to fix the

WARRANTY OF CONSTRUCTION (APR 1984)

FAR 52.246-21

(a) In addition to any other warranties in this contract, the Contractor warrants, except as provided in paragraph (j) of this clause, that work performed under this contract conforms to the contract requirements and is free of any defect in equipment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier.

(b) This warranty shall continue for a period of 1 year from the date of final acceptance of the work. If the Government takes possession of any part of the work before final acceptance, this warranty shall continue for a period of 1 year from the date the Government takes possession.

(c) The Contractor shall remedy at the Contractor's expense any failure to conform, or any defect. In addition, the Contractor shall remedy at the Contractor's expense any damage to Government-owned or controlled real or personal property, when that damage is the result of:

(1) The Contractor's failure to conform to contract requirements; or

(2) Any defect of equipment, material, workmanship, or design furnished.

(d) The Contractor shall restore any work damaged in fulfilling the terms and conditions of this clause. The Contractor's warranty with respect to work repaired or replaced will run for 1 year from the date of repair or replacement.

(e) The Contracting Officer shall notify the Contractor, in writing, within a reasonable time after the discovery of any failure, defect, or damage.

(f) If the Contractor fails to remedy any failure, defect, or damage within a reasonable time after receipt of notice, the Government shall have the right to replace, repair, or otherwise remedy the failure, defect, or damage at the Contractor's expense.

(g) With respect to all warranties, express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished under this contract, the Contractor shall:

(1) Obtain all warranties that would be given in normal commercial practice;

(2) Require all warranties to be executed, in writing, for the benefit of the Government, if directed by the Contracting Officer; and

(3) Enforce all warranties for the benefit of the Government, if directed by the Contracting Officer.

(h) In the event the Contractor's warranty under paragraph (b) of this clause has expired, the Government may bring suit at its expense to enforce a subcontractor's, manufacturer's, or supplier's warranty.

(i) Unless a defect is caused by the negligence of the Contractor or subcontractor or supplier at any tier, the Contractor shall not be liable for the repair of any defects of material or design furnished by the Government nor for the repair of any damage that results from any defect in Government-furnished material or design.

(j) This warranty shall not limit the Government's rights under the Inspection and Acceptance clause of this contract with respect to latent defects, gross mistakes, or fraud.

Exhibit 9-20

problem as a warranty item? As a minimum you would address the possibilities of the defect being caused by:

- Defect in construction (construction contractor?);
- Design deficiency (A/E, or designer of the project?);
- Road not meeting contract specification (contractor?);
- Unusual weather conditions (Act of God?);
- Inadequate maintenance, etc. (Government?)

In addition, technical questions must be addressed, such as:

- How long has the erosion been occurring?
- Were the tests which were made on the slurry at the time of application reviewed and approved?
- Is the defect being handled in an expeditious manner, so that the issue can be quickly resolved before further damage occurs?
- Should other technical opinions be solicited? (A/E, others?)
- Is there A/E Liability? If the problem is determined to be a design defect, the A/E may be responsible to pay the costs of correcting the defect, rather than the construction contractor.

Processing Defect Under Warranty

① The Government must give prompt notice of a defect to the contractor.

As a practical matter, it is best to inform the contractor that a defect has been reported and extend an invitation to have the contractor come in and discuss the problem. If an agreement can be reached through discussion, then no further action will be required except documentation of the file. If not, send a letter to the contractor verifying the Government's position, along with substantiating facts, and request correction in accordance with the Warranty of Construction clause.

(A copy of the notification to the contractor should be furnished to the cognizant facilities manager, or whoever is responsible in your organization for records or data management.)

② Upon receipt of notice of defects or failure, the contractor must correct any such defects or failures at the contractor's own expense. Furthermore, if these defects or failures cause any damage to anything else, the damages must also be corrected at the contractor's expense.

For Example: Assume that a pump has a faulty casting that fails and sprays the interior of a room, damaging the paint on the walls, the acoustical tile ceiling, and the contents of the room, including the finish on the desk. Under these circumstances, the contractor is obligated to not only repair the pump, but also to repaint the

walls, to replace the acoustical tile ceiling, and to refinish the desk and repair damages to other contents in the room, such as cushions, pictures, etc.

③ The Government must also allow sufficient time for the contractor to correct the deficiencies.

√ If the contractor does not take any action, or refuses to assume responsibility, you may proceed to have the defect fixed by other means or if the defect is considered minor, request a reduction in price.

Exhibit 9-21 illustrates various situations of non-compliance with the Inspection of Construction and Warranty of Construction clauses.

CLASSIFICATION OF VARIOUS REMEDIES FOR NONCOMPLIANCE

SITUATION	CLASSIFICATION
Compressor breaks during the first warranty year when high pressure controls do not operate properly.	Under warranty provisions.
High voltage cable splices fail after use of 14 months while operating at normal voltages.	Latent defect
The lining is peeling off the inside of a hot water tank.	Latent defect
A lab report indicated six of fifty units of door hardware failed inspection (reasonable grounds for rejection under the contract). The Government inspector asked the contractor what the reports meant, and the contractor's statement that, in its opinion, the lab reports confirmed that the items met the specification.	Not a gross mistake amounting to fraud; the statement was one of opinion, not fact.
Incorrect steamline saddles were installed. The saddles match the contractor approved submittal but submittal data does not match the manufacturer's data. Evidence shows that the contractor may have altered the submittal data.	Suspected Fraud
Incorrect steamline saddles installed. The saddles match the contractor approved submittal, but submittal data does not match manufacturer's data. No evidence is available to indicate who altered the submittal data.	Gross mistake
The contractor certified on the invoice that the articles conformed. They were accepted by the Government based on the certification.	Gross mistake amounting to Fraud.

Exhibit 9-21

Buy American

There are two separate clauses governing Buy American regulations in Government contracting - one for supply contracts and one for construction (See Chapter 5.7). The rules are basically the same for both; the exception being in terminology and the process used in the construction contract to make the determination regarding a foreign end item. The remedies provided in both clauses are the same for noncompliance.

Agencies, in order to maintain control, have:

1. Reporting requirements on violations and suspected violations.
2. Waiver approval levels based on dollar value for both preaward and postaward waivers.

FAR 9.406-3

Reporting requirements among the agencies are basically the same:

> Suspected violations of non-domestic material incorporated into the work must be reported up through the local chain of command, to determine if debarment is appropriate.

Some basic rules to follow in complying with the reporting requirement are:

- Although considered a violation under the clause, for purposes of reporting it is not considered a violation if foreign materials were brought to the site but not incorporated into the work.

  The remedy is to notify the contractor that the materials must be removed and replaced by domestic material. Immediate response to the request for removal constitutes disposition.

- Now that world trade has become common place in all types of products, many cases concerning violations occur by mistake.

  The remedy of removing the delivered material from the construction site usually eliminates the need to take any further action.

Be Careful!!

In the interest of trying to "solve the problem" at the local level, you may place yourself in a position to be subject to a violation of the regulations and your agency procedures. There is sometimes a misconception that a local decision NOT to recommend debarment, and consequently NOT to report, suspected or actual violations of the Buy American Act without following established procedures and the necessary approvals, is mistakenly perceived to be acceptable because the following local actions were taken:

- A modification was issued to reduce the contract price by the difference between the foreign and domestic price when it was viewed "impracticable" to have the contractor remove the foreign item already incorporated into the work.

Wrong analysis: Using this improper rationale implies that since the contractor had not benefited, neither a recommended debarment nor reporting is deemed necessary.

- Reduced the contract price for the total cost of the foreign item.
  Wrong analysis: Using this improper rationale implies there would be no violation since the Government did not "buy it".

Perhaps the remedy you may seek is to apply for a postaward waiver and obtain consideration for the noncompliance rather than recommend debarment of the contractor. The Buy American Act does provide for exceptions (See Exhibit 5-20.) to be granted ① when it is not in the public interest to require that the Act be complied with, or ② if complying with the Act would result in unreasonable costs. Therefore <u>an exception can be requested after award of a contract</u>. However, it must be emphasized that postaward waivers are granted in very limited circumstances. Waivers after award are usually restricted to situations such as: *

- A change to the contract requiring the use of foreign material. The request must be accompanied by a justification as to why the change is necessary.

- The specification is incorrect and the required product can only be procured from a foreign source. (In this instance the request for a waiver should include an analysis and explanation as to why an alternative design cannot be used, as well as what steps are being taken to pursue A/E liability.)

- It is impossible for the contractor to request a preaward exemption. This may be applicable if at the time of award, the contractor did not know that a domestic item or material would not be available;

- The construction product has ceased to be manufactured or produced in the United States.

- Exceptional circumstances exist which would be unfair to the contractor if a waiver were not granted.

  For example, a building which contains foreign steel has been erected and it was not known that the steel members were of foreign manufacture until substantial completion. It would not seem to be in the Government's best interest to tear the building down and restructure it for the sake of compliance when the steel, although foreign made, meets the specification, and it is unrealistic to tear the building down.

*ASBCA 32288, 89-1 BCA p. 20346 (1987) Grimberg Company, Inc., v. The United States, Appealed US Court of Appeals for the Federal Circuit, (869) F.2d (1475) 1989

9.2.3 A/E Liability

When the Government is required to modify its construction contracts due to defective specifications or other design-related problems, remedies may also be sought against the A/E who designed the project. The A/E contractor is responsible for the

FAR 36.608

- professional quality,
- technical accuracy, and
- coordination of all services required under its contracts.

In order to consider to what extent the A/E may be reasonably liable, you must rely on technical personnel and legal counsel.

- Carefully document all facts and circumstances.
- Consider the administrative cost involved.
- Decide what is otherwise in the best interest of the Government.

Most agencies have established review boards to make A/E Liability decisions.

FAR 52.236-23

In determining A/E liability, you should be careful not to incur any additional costs for corrective design. Under RESPONSIBILITY OF THE ARCHITECT-ENGINEER clause , the A/E is obligated to provide all corrective design work at no additional cost to the Government regardless of whether the defective design was the result of professional negligence.

A practical, but effective way of pursuing a design defect remedy, is to provide the A/E an opportunity to participate in discussions with the building contractor in working out a mutual solution between them. If this cannot be done, then more formal procedures will have to be initiated. Consult your agency for guidance as to policy to follow.

☞ **NOTE:** In order to recover damages that have been incurred by the Government, it is sometimes necessary to actually sue the A/E in court, relying on common law for recovery. However, recovery on common law must be based upon proving professional negligence.

9.2.4 Cure or Show Cause Notices

FAR 49.607(a)

If you have exhausted all other remedies and are considering termination action because of failure to make progress, or the contractor has failed to comply in some other aspect, you may prepare a Cure Notice (or 10 day cure notice) for the contracting officer's signature.

This procedure, however is not specifically required by the construction Default clause. Since it is discretionary, it may be used to notify the contractor of the failure and allow a period of at least 10 days in which the contractor may correct or cure the failure.

The notice should

- point out the provisions of the contract where the failure has (or is) occurring,
- contain the statement that at the end of the expiration date given, the contract may be terminated for default, and
- list the liabilities should default occur.

If time remaining in the current contract is not sufficient to permit a realistic "cure" period of 10 days or more, you may send a "Show Cause Notice."

If the contractor fails to cure the situation or to provide you with a satisfactory explanation for the delay, then you may then proceed with a termination action. Since the contractor's surety has a vital interest in ensuring performance of the contract, copies of the cure and show cause notices must also be sent to the surety.

9.3 Process Terminations

The potentially high price to pay for a wrongful termination certainly warrants your careful review of contract clauses and surrounding circumstances prior to making a decision to recommend termination.

The fact that the Government has the legal right to terminate is not the only factor to be considered. <u>The most crucial issue is how to best complete the project:</u>

- It may be decided that the most promising of the choices is to continue working with the contractor in spite of a continued delinquency, or
- Immediate default action may be the quickest and the best means of finishing the project.

The decision is highly discretionary, based upon the business judgment of the contracting officer, and the business advisors who will assist in making that decision. Exhibit 9-22 lists some criteria to consider before initiating termination action.

You, the contracting officer, and other Government personnel or construction managers involved in the administration of construction contracts containing bonds, must be mindful of the obligations of the surety. This is particularly important if the Contracting Officer has knowledge that a delinquent contractor has not been diligent in making payments to the subcontractors.

FAR 49.105-4

You must also remember, whenever a termination action is taken, to direct action to ensure the cleanup of the site, protection of serviceable materials, removal of hazards, etc. to leave a safe and healthful site.

FACTORS TO BE CONSIDERED BEFORE TERMINATING

FAR 49.402-3

- Clauses of the contract and applicable laws and regulations;
- Specific failure of the contractor and the excuses made by the contractor for such failure;
- Availability of construction services from other sources;
- Urgency of the need and the period of time which would be required to work by other sources as compared with the time in which completion could be obtained from the delinquent contractor;
- Degree of essentiality of the contractor, such as unique contractor capabilities;
- Availability of funds to finance repurchase costs which may prove to be uncollectible from the defaulted contractor, and the availability of funds to finance termination costs if the default is determined to be excusable; and
- Any other pertinent facts and circumstances.

Exhibit 9-22

You must document the findings and initiate default proceedings if the surety ① notifies you that they are aware that the bonded contractor is in default, and ② requests the Government to withhold progress payments because of the contractor's

- failure to progress,
- bankruptcy, or
- failure to pay subcontractors or materialmen.

Not complying with the bonding company's request may result in the Government being liable to the surety. (See details in Exhibit 9-23, on terminating from the Bonding Company's point of view.)

9.3.1 Termination for Default

FAR 49.504(c)

The right to terminate a contract may originate from either the general principles of contract law or the express terms of the construction contract. The DEFAULT (FIXED-PRICE CONSTRUCTION)* clause allows termination for default when there is significant delay in performance. For any other reason, you must utilize another contract clause or a sanction by statute. (See list below.)

* Use Alternate III if contract awarded during period of national emergency

Construction contracts may be terminated for default in accordance with the following:

- **Failure to prosecute work or any separable part with diligence:**

  If the contractor fails to perform in a timely manner, the contractor is in default and the contract can properly be terminated. The presence or absence of the Government's insistence that time is of the essence is often the controlling factor in determining the acceptability of late performance. In construction contracts the assessment of liquidated damages indicates that time is of the essence.

- **Non-compliance with the doctrine of substantial completion:**

  Prior to 1966 the general rule was that the Government could insist on completion by the exact due date, because timely delivery on any Government contract was considered "of the essence." However, in 1966 the former Court of Claims issued an important decision indicating that contractors may be entitled to a reasonable time after the contract completion date to correct minor deficiencies (punch list) in work that was considered substantially completed. In the years following this decision, the boards and courts have increasingly applied the "doctrine of substantial completion." Thus in most cases the Government does not consider Termination for Default actions when only minor corrective work remains on the contract. (A legal consideration that should be decided by contracting officers only after obtaining legal advice).

- **Repudiation of the contract by the contractor:**

  A repudiation or anticipatory breach occurs when a contractor clearly indicates to the Government that it cannot or will not perform on the contract. The contractor's intent must be clear and unequivocal. Therefore, it should be obtained in writing.

Other clauses, statutes, or regulations for terminating a contract include:

- Covenant Against Contingent Fees clause permits the Government to annul a contract for violation.
- Equal Opportunity clause, provides that a contract may be cancelled, terminated, or suspended for violation.
- Anti-Kickback Act violations which prohibits any subcontractor from making a gift to a contractor or higher tier subcontractor as an inducement for award of a subcontract.
- Violations of Walsh Healey, Service Contract, or Davis Bacon.
- Failure to obtain required bonds within the time specified.
- Defective workmanship.
- Failure to submit progress schedule.
- Fraud.

Even though the power to terminate is expressly reserved by the contract, you must exercise the termination power in good faith based upon the stipulated conditions of the termination clause or upon a material breach of the contract terms.

> In determining matters such as "good faith" of the Government, the courts will look beyond the facts that immediately preceded the termination and investigate all of the circumstances under which the contract was executed, including the conduct of the parties throughout the contract's performance.

It should be recognized that default clauses are included solely for the purpose of protecting the Government from loss or damage. They are not to be used for arbitrary, coercive, or punitive damages.

The termination for default decision has broad ramifications for all parties. Exhibit 9-23 examines some of them from each of the party's viewpoint.

Alternatives to Default

The Government does have some alternatives that should be considered in lieu of default. Since default is highly discretionary, the courts and boards have found default terminations invalid in the absence of discretion in making the decision; it requires that the decision:

- not be arbitrary,
- be based upon a judgment concerning the merits,
- demonstrate a consideration of available alternatives, and
- be free from outside influence.

Although the Government has the burden of showing that a default termination was proper, once it has been established, the burden then shifts to the contractor to prove otherwise, such as in the case of an **excusable delay** (See Chapter 7.1).

> If the Government terminates a contract and it is later found that the reason was improper, such as one which should have been an excusable delay, the finding will not necessarily negate the termination action unless the contractor can prove:
>
> - That the delay was, in fact, excusable; and
> - Show by competent evidence that the delay caused an overall delay of the entire project.
>
> If, however, the termination is ultimately found to be improper, the fixed-price construction Default clause states:
>
> "(c) if, after termination of the contractor's right to proceed, it is determined that the contractor was not in default, or that the delay was excusable, the rights and obligations of the parties will be the

THE EFFECT OF TERMINATION ON ALL PARTIES	
Viewpoint	Affects
CONTRACTOR	Termination for Default is undoubtedly a most traumatic experience for the construction contractor. Not only does the action put an end to performance of the contract and, in all probability, to the contractor's hopes for a profit on the contract, it also subjects the contractor to possible liability for the Government's extra costs of having the contract completed by another contractor. It has a negative connotation concerning the contractor's management and ability to perform on future contracts. Not infrequently it can lead to a contractor's financial ruin.
GOVERNMENT	From the Government's point of view, default termination is the ultimate method of dealing with a contractor's unexcused present or prospective failure to perform in accordance with the contract specifications and schedule. The default action for failure to perform is permissive and is not mandatory. Since termination causes a cessation of performance, with still further delays to be encountered in carrying out the procedure, to terminate for default is considered a drastic action to be taken. For this reason, it is unusual for the Government to immediately take action to default a contractor upon its initial failure to perform.
CONTRACTING OFFICER	Termination for Default procedures provide for excess costs to the Government in reprocurement. However, under the provisions governing reprocurement costs, routine "overhead" and other administrative costs are not recoverable. In reality, the Contracting Officer is cognizant of the adverse impact and added burden on the staff administering the contract in terms of costs of added manhours, in paperwork, the time and effort which must be spent in resoliciting and negotiating, and the pressures which are brought to bear on completing the project. Since the procedure is unanticipated, the extra administrative burden must somehow be absorbed into an already busy schedule. It is a necessary act at times, but one that no Contracting Officer, nor a member of the staff, relishes.
BANKRUPTCY COURT	Occasionally the Government will find itself "holding the bag" by a contractor filing for bankruptcy and abandoning the project either before, during, or after termination proceedings (See Exhibit 9-28). When a contractor files for bankruptcy the Government must participate in the bankruptcy proceedings to protect its interests. In such cases the Government is generally bound by the same restrictions as any other creditor. However there are some important exceptions. The Act provides, for example that "contingent debts and contingent contractual liabilities" and "claims for anticipatory breach" may be proved and allowed. It will also be allowed priority in recovery second to that of payment of taxes.

Exhibit 9-23

THE EFFECT OF TERMINATION ON ALL PARTIES	
Viewpoint	Affects
BOARDS and COURTS	A termination for default is also considered by the courts to be a drastic measure; thus the Government is accordingly required to be strictly accountable for any such termination. Absent complete substantiating evidence, the Government's decision to terminate may be overturned for such reasons as: • Terminating too soon. • Should have terminated sooner. • Substantial completion by the contractor has been accomplished. • Government's actions constituted a waiver due to lack of discretion. However, when the courts or boards are convinced that discretion has been exercised in making the decision to terminate the contract, it will not substitute its judgment for that of the Contracting Officer.
BONDING COMPANY	The obligation of the surety under the performance bond is to indemnify the Government up to the amount of the bond in the event of the contractor's default. However, the courts have ruled that the Government owes an equitable obligation to a contractor's surety. In Ohio Casualty Ins. Co. v. U. S., 12 Cl. Ct. 590 (1987), the Claims Court held that by failing to terminate an irresponsible, dishonest, incompetent and abusive contractor whose performance was two years behind schedule, the Contracting Officer had abused her/his discretion and consequently violated the equitable duty owed to the surety. Therefore a surety does not contract to assume the risk of a Contracting Officer's unreasonable conduct which results in excess payments to the subcontractors, suppliers, and expenses. The surety has a right to demand partial payments be made direct to them in certain instances when default is eminent or in process. The courts have consistently held that the surety who satisfies the contractor's obligations to pay laborers and materialmen under the payment bond has an equitable interest in the contract. In addition, the bonding company has the right to decide whether to complete the work, provide a subcontractor to complete the work, or rely on the Government to complete the work in-house (for cases where there is substantial completion), or in a reprocurement contract.

Exhibit 9-23 (Continued)

same as if the termination had been issued for the convenience of the Government."

Thus, the default termination will be converted to a convenience termination if the contractor was not at fault and the delay was, in fact, excusable.

Some of the Government's alternatives to default that must be considered in order to demonstrate that discretion was used in making the decision are contained in Exhibit 9-24.

ALTERNATIVES TO DEFAULT ACTION

- No action with respect to default proceedings: Permit contractor to continue so long as the contractor provides clear and convincing evidence that performance will be cured by the completion date already established. However, the Contracting Officer should document the findings of fact and notify the contractor in writing that:

  Government accepts the contractor's commitment to cure performance; and

  Contractor's failure to cure the performance and/or to fulfill the contractually specified requirements will reinstate the Government's contractual right to terminate for default.

- Revision of the completion schedule: Permit the contractor or the surety to continue under a revised completion schedule. Advise the contractor that under the revised schedule, liquidated damages will not be assessed until after the revised delivery date passes. Obtain consideration for the change in the form of a reduced price, improved work methods, etc.

- Completion of the contract by a third party contractor. You may allow continued performance by a subcontractor or other comparable arrangement. The third party must be acceptable by the Government. Assurances must be provided that performance and payment bonds, as well as insurance, will be provided. {FAR 49.402-4(b)}

- Surety Takeover: If the surety for the failing contractor offers another firm to complete the work, this can be accomplished by a four party agreement. (i.e. the Government. existing contractor, new contractor and the surety). This is normally an agreeable arrangement unless there is evidence that the proposed contractor is not competent or not qualified. {FAR 49.404}

- No-cost settlement: If the requirement no longer exists, and the contractor is not liable to the Government for liquidated or other damages, you can attempt to execute a no-cost settlement agreement. {FAR 49.402-4(c)}

- Deductive contract modification: You may consider a modification to deduct part of the remaining work for a project that is nearing completion. With this method, you can quickly resolve the issues and complete the project by other means.

Exhibit 9-24

Forbearance

Because of the gravity and consequences of a decision to terminate for default, the boards of contract appeals and courts generally recognize the need for some period of time beyond scheduled performance, during which time the Government may pause and reflect upon such action. This is called a period of forbearance.

A default termination is a drastic sanction. You have only to look upon an unfinished facility at any stage of construction and visualize the impact of a sudden halt in all work. Exercising a reasonable period of forbearance also demonstrates that you are exercising discretion.

Waiver of Rights

The doctrine of waiver of rights may come into play if the forbearance period is lengthy; it may actually constitute a waiver of the default rights. During the forbearance period, the contracting officer may terminate at any time, without notice. However, it is frequently difficult to establish when the forbearance period ends and a waiver of the default has occurred.

> Contracting officers on a construction contract may exercise a longer forbearance period than one might on a supply contract because of the liquidated damage provisions; however, the period must be a reasonable one.

The exact time you may be allowed is not clear, nor have the courts agreed as to what constitutes a reasonable time for forbearance. Exhibit 9-25 contains general information that offers guidance concerning forbearance and waivers based on court and board findings. You are cautioned, however, not to use these statements as precedent. Every situation must be evaluated on its own merit.

The Government frequently attempts to preclude a finding of waiver of rights by expressly reserving its right to terminate during the period of reasonable forbearance. One version that is included in a"show cause" letter which states:

FAR 49.607(b)

> "Any assistance given to you on this contract or any acceptance by the Government of delinquent goods or services will be solely for the purpose of mitigating damages, and it is not the intention of the Government to condone any delinquency or to waive any rights the Government has under the contract."

General Services Administration has adopted an additional paragraph which is more specific:

> "None of the following shall be regarded as an extension, waiver, or abandonment of the delivery schedule or a waiver of the Government's right to terminate for default: (i) the delay by the Government in terminating for default; (ii) acceptance of delinquent deliveries; and (iii) accep-

GENERAL GUIDANCE CONCERNING WAIVERS

- If you encourage in some way the contractor to continue performance, and in reliance upon this inducement, the contractor does continue, a waiver may be found to have occurred.
- Approving a revised schedule may create a waiver if the contractor follows the approved schedule.
- Entering into negotiations for, or issuing a change order to the contract, will constitute a waiver if a new completion date is required but not established.
- If the contractor is incurring costs in a continued effort to perform, you have an obligation to act quickly in making a decision on whether to terminate.
- An indispensable element constituting a waiver is the Government indicating in some manner a willingness to have the contractor continue performance. This can be manifested by such actions as stalling for an unreasonable length of time in initiating default actions, or making express statements to the contractor about the delinquency, leading the contractor to believe the late completion "is forgiven."
- If by your silence your action would be interpreted as meaning that you have elected to permit the contractor to continue performance, you may have waived the rights to default.

Exhibit 9-25

> tance or approval of samples submitted either after default in delivery or in insufficient time for the contractor to meet the delivery schedule."

If you make statements reminding the contractor that liquidated damages will be collected on late completion, it does not constitute a waiver. To the contrary, it shows that withholding liquidated damages demonstrates that the Government has not waived the completion dates.

Following a waiver and in order to assert that time once more is of the essence, the right to terminate must be reestablished. Failure to do so will waive future rights to terminate. You can accomplish this by giving the contractor notice of a new completion date established unilaterally by the Government, or through a bilateral agreement. If the date has been set unilaterally, the Government has the burden of proving that the date is reasonable.

Notice of Termination for Default

Contracting officers shall terminate contracts for convenience and default by giving written notice to the contractor. When the notice is mailed, it shall be sent by certified mail, return receipt requested. Copies of the notice shall be distributed to ① the surety, ② any known assignee or guarantor of the contractor, and ③ to the same distribution as was made of the contract.

FAR 49.102

The notice must state:

- Contract is being terminated.
- Effective date of the termination.
- Extent of the termination.
- Reasons for the termination
- Contractor's appeal rights.
- Government's right in charging excess costs.
- That delivered materials not incorporated are to become the property of the Government.

Exhibit 9-26 gives five practical rules you should remember when exercising the right to issue a termination notice.

RULES TO REMEMBER IN ISSUING TERMINATION NOTICES

1. If the contractor receives notice of the termination and the notice does not say whether it is a termination for default or a termination for convenience, and the contractor believes it to be a termination for convenience and acts accordingly, the boards and courts have issued decisions that under these circumstances it will be considered a termination for convenience.

2. You may not call a termination for default a termination for convenience in order to protect the contractor's reputation.

3. If there is genuine uncertainty on the part of the Government when either a termination for default or one of convenience is appropriate, the termination for convenience should be used.

4. Termination for convenience is a final action; you cannot issue a termination for convenience and tomorrow change it to termination for default.

5. You can, in fact, reinstate a terminated part of a contract, but only with the contractor's written permission.

Exhibit 9-26

You must accompany a Notice of Determination for Default with a request that the Government be advised if the surety desires to enter into any arrangement for completion of the work.

In addition, you must also notify your activity disbursement officer to withhold further payments under the terminated contract pending further advice which will be furnished at the earliest practical time. You will need to work closely with the disbursement officer during all phases of the reprocurement or takeover procedures.

Exhibit 9-27 explores the impact of termination from the Government and the contractor's point of view as to what now takes place upon issuance of the termination notice.

SOME CONSEQUENCES OF TERMINATION FOR DEFAULT	
Government	**Contractor**
l. Government not liable for un-accepted work. 2. Entitled to return of all pay-ments (Progress, advanced, or partial). 3. Government has right, (not duty) to appropriate any residual material. (Negotiate a price for material). 4. Delays.	l. Liable for excess costs of reprocurement. 2. Liable for actual, liquidated damages. 3. Subcontractors are notified to stop work immediately. 4. Inventory of materials on hand must be initiated. 5. Must cooperate with the bonding company in an effort to mitigate damages.

Exhibit 9-27

Bankruptcy

FAR Subpart 49.9

On occasion you may see evidence or hear rumors that the contractor is in "financial trouble". Warnings of an impending bankruptcy or financial difficulties sometimes go hand-in-hand with a delinquent contract:

- Contractor fails to pay subcontractors on time;
- Late deliveries are being made of materials to the job site, usually shipped on a C.O.D. basis;
- Contractor is falling behind schedule;
- Complaints by laborers on the job;
- Telephone calls go unanswered; or
- Sloppy performance and workmanship is evident.

If all indications are pointing in the direction of the possibility of bankruptcy, and you are already contemplating default actions, discuss your concerns with the contracting officer and legal counsel, at once.

Exhibit 9-28 is the full text of the BANKRUPTCY clause which provides for the actions a contractor must take upon entering into proceedings relating bankruptcy.

BANKRUPTCY (Apr 1991)

FAR 52.242-13

In the event the contractor enters into proceedings relating to bankruptcy, whether voluntary or involuntary, the contractor agrees to furnish, by certified mail, written notification of the bankruptcy to the Contracting Officer responsible for administering the contract. This notification shall be furnished within five days of the initiation of the proceedings relating to bankruptcy filing. This notification shall include the date on which the bankruptcy petition was filed, the identity of the court in which the bankruptcy petition was filed, and a listing of Government contract numbers and contracting offices for all Government contracts against which final payment has not been made. This obligation remains in effect until final payment under this contract.

Exhibit 9-28

Surety

Having notified the surety of the termination for default, you must provide an opportunity for the bonding company to assess the situation and make their decision as to what course they choose to take.

If the surety decides they do not wish to complete the work and you are so informed in writing, your other options include:

- Accomplish the work by your own forces; or
- Proceed with reprocurement.

If the surety decides that they wish to complete the work, completion should normally be permitted, unless you have reason to believe it is not in the best interest of the Government. (i.e., you believe that the construction firm that the surety proposes to employ is not reliable or incompetent in a takeover agreement.)

FAR 49.404

Because of the possibility of conflicting claims over unpaid prior earnings of the defaulted contractor, the surety may condition its offer of completion upon the execution by the Government of a **takeover agreement**, fixing the surety's rights to payment from those funds:

- Surety will take over management of the contract in order to assure its completion,
- In accordance with all the terms and conditions of the original contract, and
- Government will pay the surety's costs and expenses, which will be the balance of the contract price at the time of default, subject to several conditions (See Exhibit 9-29).

CONDITIONS OF A TAKEOVER AGREEMENT

- Any unpaid earnings of the defaulting contractor, including retained percentages and progress estimates for completed work prior to default, shall be subject to claims by the Government against the contractor.

- The agreement does not waive or release the Government's right to liquidated damages.

- If the contract has been assigned to a financial institution, the proceeds from the contract will not be available to the surety unless the surety enters into an agreement with the bank.

- In no event shall the surety be entitled to be paid any amount in excess of its total expenditures necessarily made in completing the work and discharging its liabilities under the payment bond.

Exhibit 9-29

Accomplishing Work by In-house Forces

The construction contract default clause gives the Government the right to "take over the work and complete it by contract or otherwise":

- Normally only occurs when the facility is substantially complete.
- Done with the approval of the bonding company.
- May use materials brought to the site, but not yet incorporated.

FAR 49.402-2(e)

Excess costs are generally recoverable when

- Urgent need can be demonstrated;
- There is no reasonable alternative under the circumstances; and
- You can prove that there would have been such excess costs if a completion contract had been awarded to a private firm.

Accomplishing Work by Reprocurement

Reprocurement is one of the Governments rights in the event it suffers damages as the result of default by the contractor under a fixed-price construction contract. The Government can assess the costs of reprocurement against the account of the defaulted contractor.

However, the Government is expected to act reasonably in the soliciting and awarding of the reprocurement contract in order to protect both the interests of the contractor and the Government. Failure to do so could result in the conversion of the termination for default into one of convenience if the contractor can show that the Government failed to act reasonably in mitigating costs.

The Government is entitled to recover actual damages for breach of the contract just as any other party to a contract:

- Cost of Government supervisory personnel such as inspectors and engineers incurred during a contractor caused delay,
- Costs caused by the delay which the Government had to pay to another contractor on the same, or a related projected or
- Any unliquidated progress payments.

Contractor Appeals

A contractor who believes that its contract has been defaulted unfairly or improperly can contest that action by appealing to the

- appropriate Board of Contract Appeals or
- U. S. Claims Court.

Even when a contractor fails to initiate a timely appeal concerning the termination for default, he/she can still challenge the propriety of that termination, as well as the propriety of the reprocurement procedure.

9.3.2 Termination for Convenience

The right of the Government to terminate a contract when its completion is no longer in the Government's best interest has long been recognized. It has been the subject of many court and board decisions that have evolved special adaptations for construction.

FAR 49.502(b)(1)(ii)

The TERMINATION FOR CONVENIENCE OF THE GOVERNMENT (FIXED PRICE) *Alternate I* clause is required in all construction contracts estimated to exceed $100,000. It establishes the basis for and measure of compensation which may be due a contractor as a consequence of termination. It serves two purposes:

1. Provides an expeditious procedure for processing the contractor's termination claims; and
2. Relieves the Government from liability for breach of contract damages.

The courts and boards have provided some guidance through past decisions on criteria to apply when terminating for convenience:

- Contracting officer believes the contractor is in default, but the contractor has raised some defenses on its behalf that may threaten the position of the Government;
- Technical obsolescence; (Construction projects are rarely cancelled for this reason.) and
- Lack of availability of funds. (Fund availability usually is assured on construction projects prior to award.)

FAR 49.502(b)(1)(iii)

[If the contract is with an agency of the U.S. Government or with State, local, or foreign governments, the contracting officer shall use the clause with its Alternate III.]

Although recommendations may be made by the engineers, legal, or technical staff, it is the contracting officer who makes the final decision. The procedures to follow once the decision is made to terminate for convenience are outlined in Exhibit 9-30.

TERMINATION FOR CONVENIENCE PROCESS	
FAR Reference	**Requirement**
Notice of Termination FAR 49.102	Contractor must be notified in writing that the contract has been terminated for convenience.
Initial Conference FAR 49.105(c)	Contracting officer, the contractor, and important subcontractor personnel discuss the effect of termination and the procedures to be followed in effecting a settlement. (Particularly beneficial on large construction projects.)
Prepare and Submit Inventory Schedules by the Contractor FAR 45.508-1	Contractor must list the property acquired for and Schedules by the Contractor: allocable to the terminated contract.
Disposal of Termination Inventory FAR 45.603	Terminated inventory must be disposed of by purchase or retention by the contractor, return material to suppliers, use by the Government, by donation, sale, destruction, or abandonment. Termination inventory may result in a credit against the amount the Government owes the contractor in the final settlement.
Completed End Item FAR 49.205(b)	Government inspects undelivered completed end items and decides which are to be delivered; excludes work in place.
Submission of Settlement Proposal FAR 49.206-1	Contractor must submit a proposal for compensation under the clause.
Inventory or total cost basis FAR 49-206-2(a)(3) & (b)(4)	FAR requires that only the total cost basis may be used for fixed price construction contracts for complete terminations. However, the inventory method may be used for partial terminations. Contractor must submit no later than one year from date of notice.
Audit Report FAR 49.107 or FAR 49.303-2	Obtain audit report if applicable.
Settlement by Negotiation FAR 49.109	Government and the contractor negotiate the amount of the final settlement. If both parties agree to a sum of money, the settlement is by negotiation. If the parties fail to agree, the Contracting Officer must make a unilateral determination of the amount due the contractor. The determination may be appealed.
Profit FAR 49.202(c)	Government allows profit on prime's settlement with subs for work in place but excludes profit for materials on hand.
Percentage of Completion FAR 49.305-2	Government uses percentage of completion basis for adjustment of fee for cost-reimbursement contract.
Memorandum of Negotiation FAR 49.110	Memorandum shall be written explaining the basis for the settlement in order to assist reviewing authorities.
Settlement Agreement FAR 49.109 or FAR 49.303-4	Government and the contractor enter into a final agreement on the amount of the settlement. If some areas of the settlement are disputed, the contractor will be paid the amount the Government believes proper, pending final resolution of the appeal.
Final Payment FAR 49.112-2	Contracting officer shall ascertain whether there are any outstanding labor violations and determine amount to be withheld.

Exhibit 9-30

MEMORANDUM

DATE: June 20, 1991
FROM: Bill Gibson
To: Greg Harris

SUBJECT: Your Memo dated June 16, Status on the CTC Project.

1. I have reviewed the contents of your memo and have some comments concerning some of the problems being encountered.

You asked what some of the tell-tale signs of a claim would be.

- *Constant complaints being registered about the treatment received on the job.*
- *Schedule slippage.*
- *Flippant attitude concerning liquidated damages (i.e. as described in paragraph 3 of your memo).*
- *Excessive correspondence addressing small, sometimes insignificant matters.*

Since the contractor on the CTC Project has expressed more than one of these type behaviors, a claim may indeed be brewing. My advice is to carefully document the file on a daily basis, making sure that anyone reviewing the file at a later date would have little or no problem in restructuring the events.

2. Regarding the second paragraph in your memo pertaining to liability for the pump, it would appear on the basis of the facts described in your memo, that the Government has bought itself a pump. (Unless the pump is faulty in its operation). The Government wrote the specification, and the A/E approved the submittal. However, the situation should be thoroughly investigated to determine if it is the fault of the design or if the problem is caused by malfunction. Keep me advised.

3. If the contractor fails to submit a plan as to how and when the lost time will be gained, default termination should be considered. Keep me advised. And by the way, if the decision is to terminate, one would not be required to send Show Cause and Cure Notices.

I expect to hear from you concerning the results of the letter expected from the contractor. Sounds like you are "keeping on top of the project."

APPENDIX A

SECTION 1

BAR CHART

Development of a Bar Chart Schedule

The use of Bar Charts to measure progress is discussed in Chapter 7.2. Among the points discussed was that Bar Charting is a simple planning technique that is widely used on construction projects as an economic control tool. The schedule, essentially, plots progress as opposed to a cumulative percent of completion. The progress bars compare targeted versus actual progress. It is easily prepared and updated, and can be used as a stand-alone document.

Step One: Chart Material Layout

After first obtaining a large piece of chart paper or posterboard, set up vertical columns to allow enough room across the bottom to accommodate the entire project duration. Draw vertical lines to form columns for the activities, a column for percentages and following the last month you wish to chart, establish a column for dollars accumulated. The procedure is illustrated in Exhibit A-1. This exhibit has been set up for a four and one-half month long project to build a tune-up garage.

JOB PROGRESS REPORT: INITIAL PAPER LAYOUT

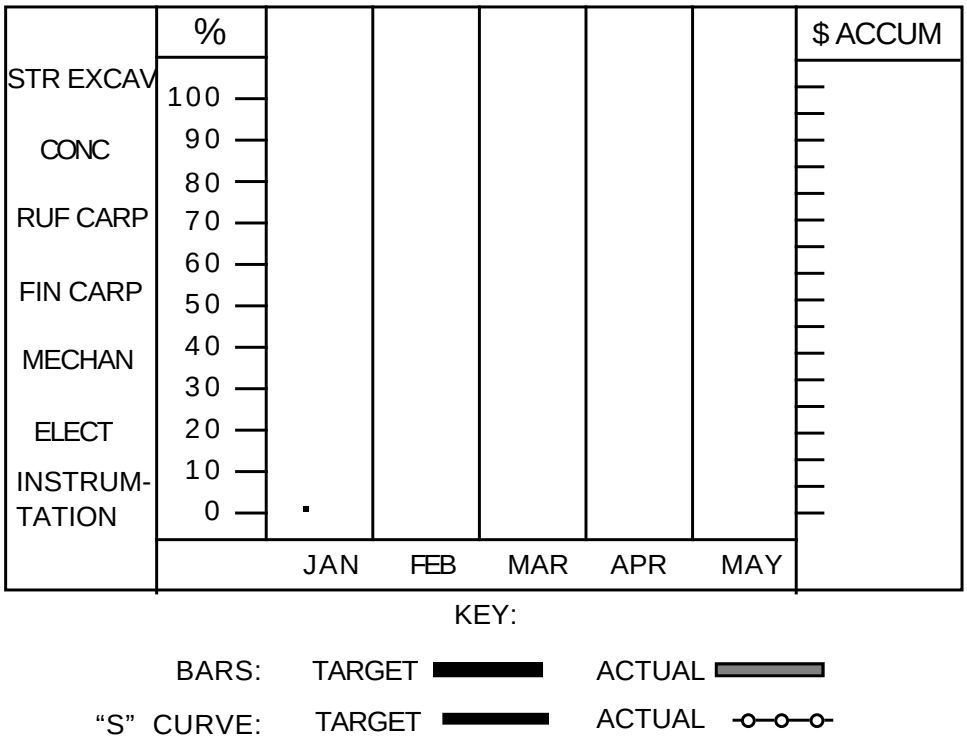


Exhibit A-1

Step Two: Activity Identification

The second step you must take is to break the project down into specific major activities, much the same as you did in setting up a CPM. Now assign each activity with a duration. The duration chosen is determined by one who is knowledgeable or experienced in construction. Duration is based on:

- Complexity of the work.
- Volume of work.
- Crew sizes available.

The activities are normally placed on the chart in general order of precedence with the earliest on top and the latest on the bottom. Now, determine the date that each activity can, or should begin. Take into consideration the submittal review time, material purchase delivery, and utility outages, etc. An estimated dollar value (including material and labor values) for each activity should also be determined. The sum of the estimated values should equal the contract price. Record these on scratch paper and arrange as necessary. The contractor must submit the work to you for approval. That is why your analysis must be accurate. It will be a valid tool to check the contractors' progress.

Step Three: Activity Placement

The third step is to place the activities on the chart. You must list the activities according to the general precedence and by the dates in which they are to start. Review the chart for coherent logic. If the relationship of activities one-to-another is unreasonable, adjust them as necessary. Also, review the project duration for reasonableness. Refer to Exhibit A-2 to verify the procedure thus far in developing your chart. Note: The heavy black line is an "S" curve and will be discussed next.

Step Four: Drawing the "S" Curve

The fourth step is to determine the accumulated percentage of completion for each month of the project. As each "dot" is plotted along each monthly axis corresponding to the accumulated percent complete, it will generally take on a curve in the shape of an "S" when connected together. The accumulated percentage of completion is determined by:

- Choosing each monthly axis line and identifying the activities it crosses as you go down the line.
- The point in time where the monthly axis crosses the activity.
- Multiplying the percentage (in decimal form) by the estimated dollar value of each activity.
- The sum of these values added together and divided by the total contract value to obtain the accumulated percentage of completion.
- Plotting the value for each respective month on the monthly axis connecting the points.

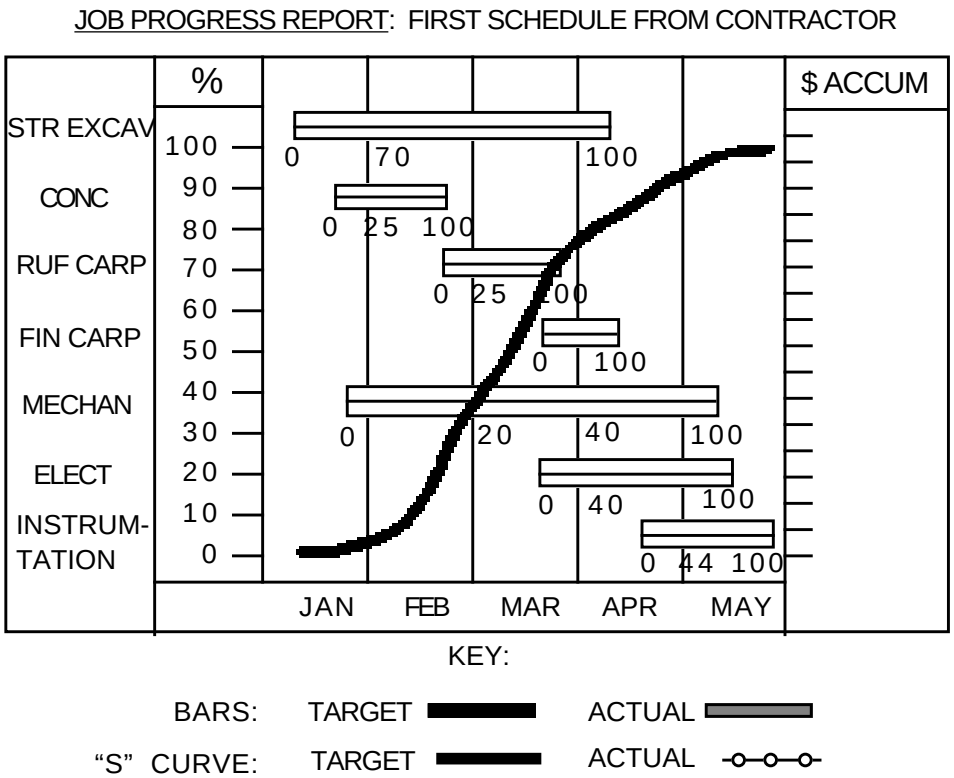


Exhibit A-2

Updating Bar Charts

You will find that updating bar charts is a simple process once the chart is put together. Each activity bar will have a space in which to draw in the actual progress each month. Updating the chart involves two steps.

Step One: Determine % of Completion

For each activity, determine the actual percent of completion. This is done by estimating the actual progress in the field. Sketch this percent on the top bar for each activity using hatched symbols. Refer to Exhibit A-3, "Job Progress Report", illustrating the procedure which indicates progress.

Step Two: Draw the "S" Curve

Using the actual percentage of completion, follow the same steps outlined in step four. Use a different color line or style to plot the actual progress as opposed to the scheduled progress. Comparing the actual accumulated percentage with the schedule will readily inform you how far behind or ahead of schedule the contractor is. Multiplying the actual percent by the contract value will result in a figure which represents the accumulated work-in-place (WIP). See Exhibit A-4.

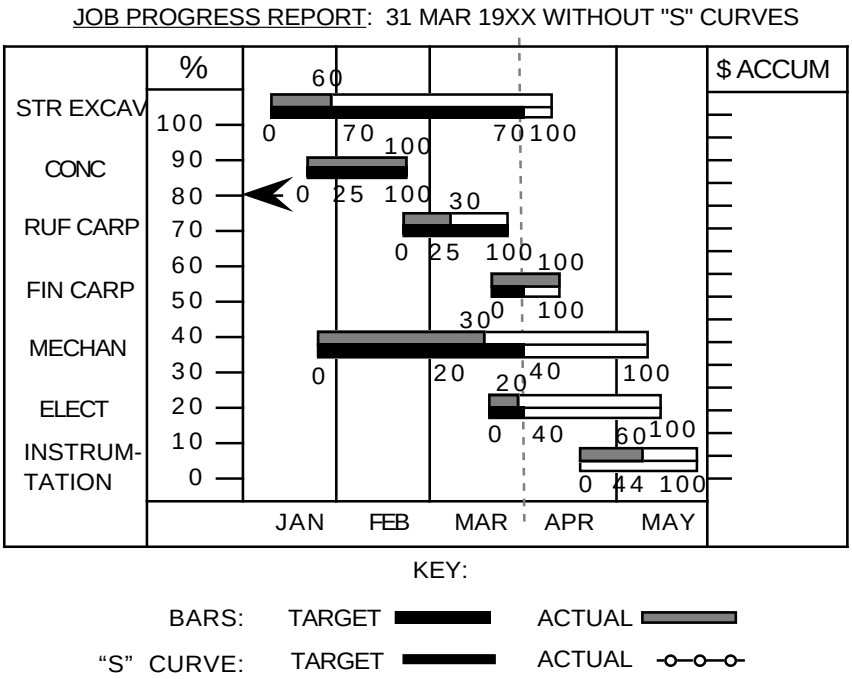


Exhibit A-3

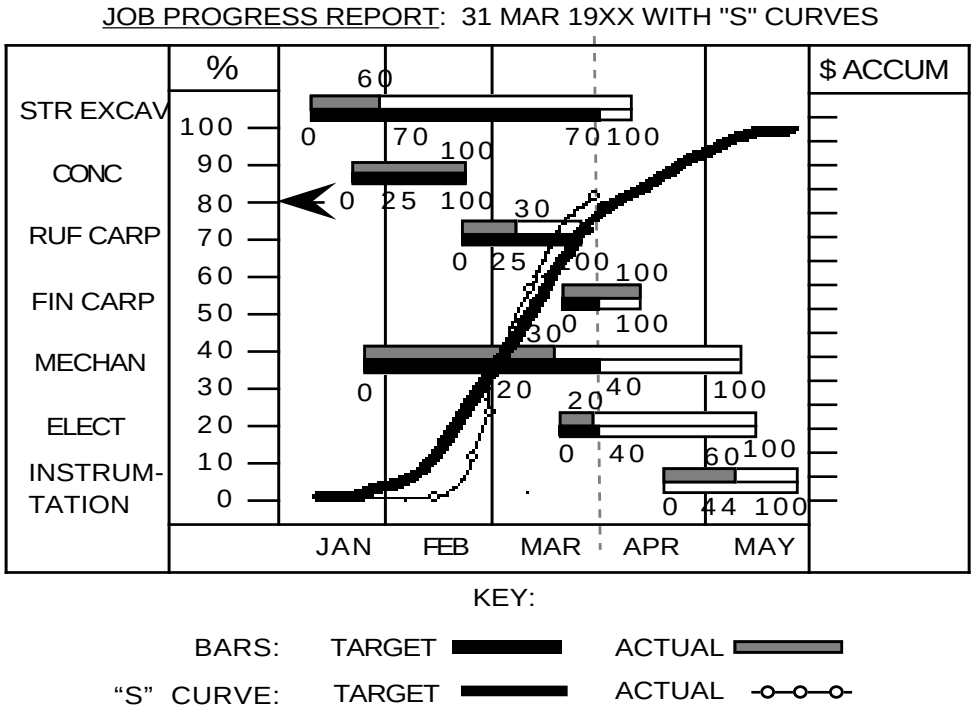


Exhibit A-4

Determine Cause of Delay

Now that you have developed a thorough written record and a complete Critical Path Schedule, you can analyze the schedule for the effects of delays. Identification of the amount and responsibility for a delay to a critical path activity is usually quite straightforward. A delay to the critical path in a network will cause a like amount of delay in the project's completion date.

Work Added by Modification

Time extensions for additional work that is added by a contract modification must either:

- Delay the project by impacting a task on the critical path, or
- Add additional critical path work.

The additional time will be the estimated time that it would require to do the work now.

Note: If work is deleted from the project that effects an item on the critical path, DO NOT subtract time from the contractor. However, you may use the deleted time to offset a time extension for additional critical work or delayed work.

SECTION 2

CRITICAL PATH METHOD

Description

The use of the Critical Path Method to measure progress is discussed in Chapter 7.2. A CPM network will have at least one path throughout the network which controls the overall project duration. This will be the longest route, called a pathway, through the diagram. For those activities not on the critical path, there exists some amount of flexibility as to when each one can start or finish. This flexibility is known as "float". The amount of float for each activity can be calculated.

The following instruction will lead you through the process of setting up a CPM. For purposes of this instruction you are to presume that you are administering a contract to build a garage. You, or someone who is knowledgeable in construction, have already completed several of the initial steps of the process, such as:

- Identifying all of the activities;
- Establishing precedence; and
- Determining activity durations.

Exhibit A-5, entitled "Project Activity List" will be used throughout the exercise. You will be asked to refer to it often, so arrange it for easy access and reference.

Now we will begin to transform this information into a graphic representation of the schedule. This graphic display will enable you to see the interdependency of the activities. Remember that everything in the diagram has meaning. There are three basic principles which govern the construction of a network schedule. Study them one at a time, making sure that you understand each one before going on to the next.

Principle One

Activities are shown as arrows.

Refer to the Project Activity List (Exhibit A-6). Note that “Rough Framing” depends upon, and cannot start, until completion of the activities “Pour Footings” and “Deliver Construction Material”.

PROJECT ACTIVITY LIST

Acty / Name		Duration	Depends On
A	Mobilize	1 Day	START
B	Deliver Material	7	A
C	Excavate & Form Footings	6	A
D	Pour Footings	2	C
E	Rough Framing	5	B, D
F	Rough Electrical	2	E
G	Install Door & Window	1	E
H	Install Roof	3	E
I	Install Siding	3	H
J	Paint Interior	2	F, G, I
K	Finished Electrical	1	J
L	Paint Exterior	2	G, I
M	Cleanup	1	K, L, N
N	Construct Driveway	3	B, D

Exhibit A-5

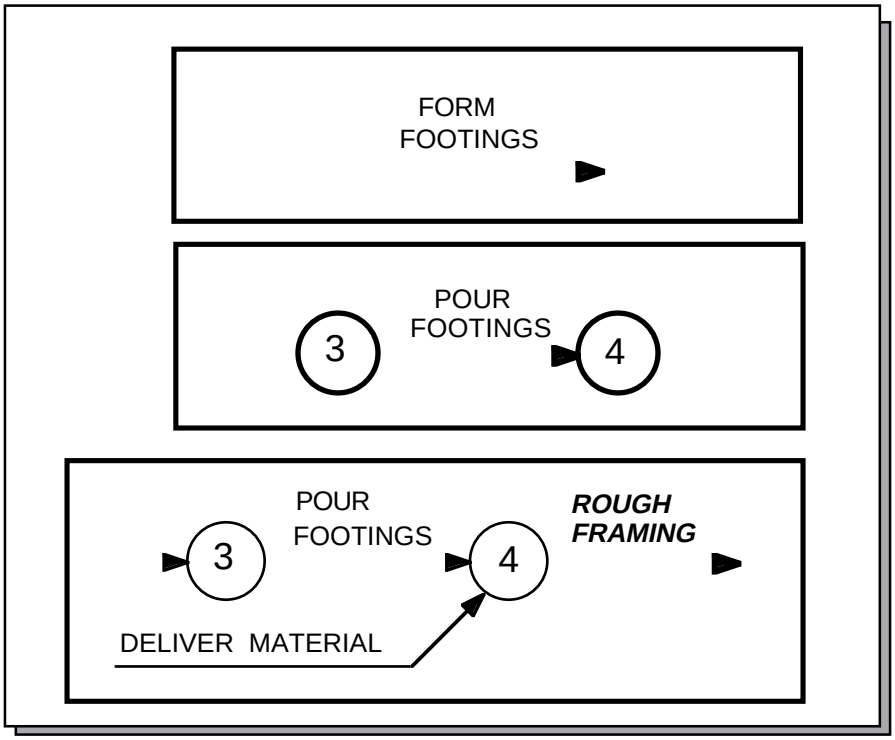


Exhibit A-6

Principle Two

All activities must begin at some point in time and end at some point in time.

The points are known as EVENTS and are shown as circles. They are numbered in any order you may choose. All activities, having a single definite starting point and ending point, are shown as arrows. Placing an arrow in the diagram will answer two questions:

1. Which one of the activities must be completed first before another activity can begin?
2. Which activities cannot start until another activity is not completed?

Suppose that you have a series of activities and you want to add the activity which illustrates delivery of the construction material. Study the example of logic illustrated in Exhibit A-7, along with the Project Activity List (Exhibit A-5) and you should be able to answer the two questions. Notice that the activity "Deliver Construction Material" starts at event number 2 and ends at event number 4 as shown in Exhibit A-7.

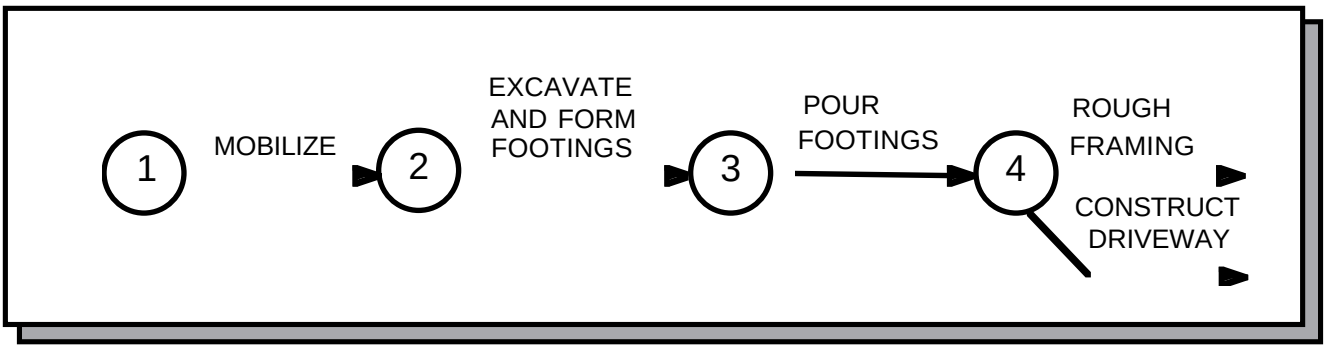


Exhibit A-7

Question No. 1: Which activities can be completed before you can deliver the construction material?

(Answer: The activity entitled "A-Mobilize")

Question No. 2: Which activities cannot start until the material is delivered?

(Answer: The activities "E-Rough Framing" & "N-Construct Driveway")

Principle Three

All activity depends upon and cannot begin until the completion of all preceding activites.

- An activity is identified by using an event number at its tail (end) called the activity's "I" and an event number at it's head (beginning) called the activity's "J." See Exhibit A-8.
- Not more than one activity may have the same I and the same J (i.e., no two arrows may have the same set of beginning and ending events).
- The I - J is a numerical way to identify activities and is commonly referred to as Node "I" and Node "J" for any arrows.
- To avoid confusion it is best to attempt to keep the "J" number higher than the "I" number, and to allow for subsequent numbers to be added (due to changes that may be made in the work).

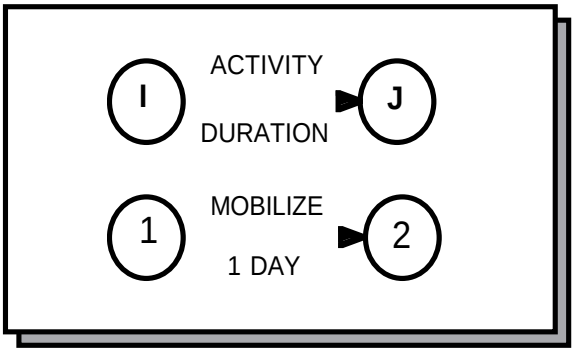


Exhibit A-8

Numbering a Dummy

A dummy activity is used to ensure that all activities have a unique identification number and to ensure the logic in a schedule is maintained. These principles are illustrated in Exhibit A-9.

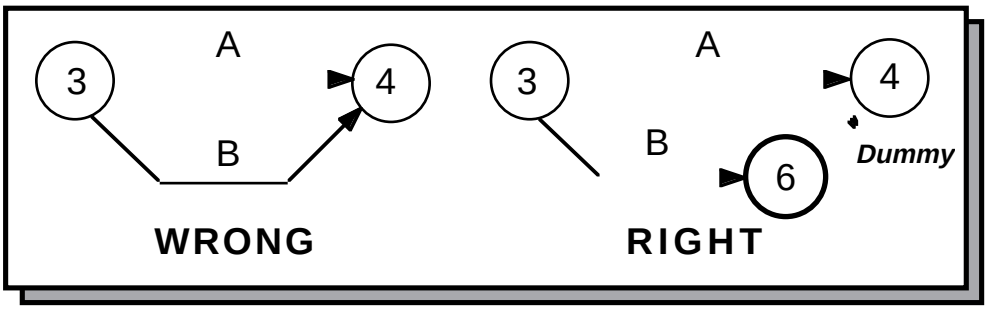


Exhibit A-9

Note that Activities A and B can start and finish at the same event. However, they must have a unique I-J identification code as explained at the beginning of Principle Three and illustrated in Exhibit 6A-8.

Logic Dummy

Note that Activity F depends upon activities E and H, and Activity G only depends upon activity H. Exhibit A-10 is entitled "Logic Dummy".

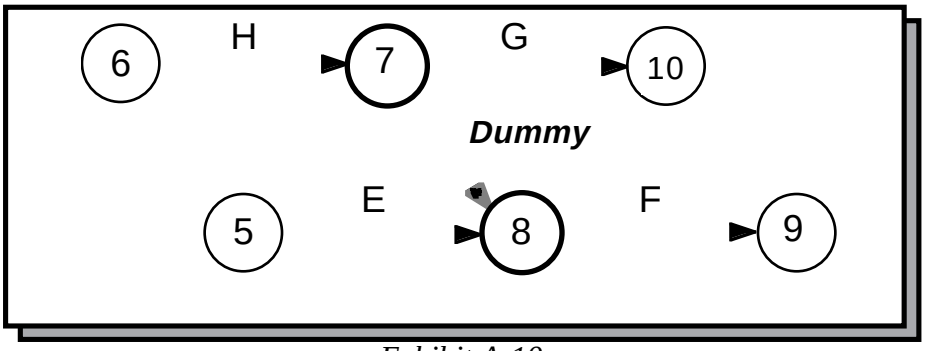
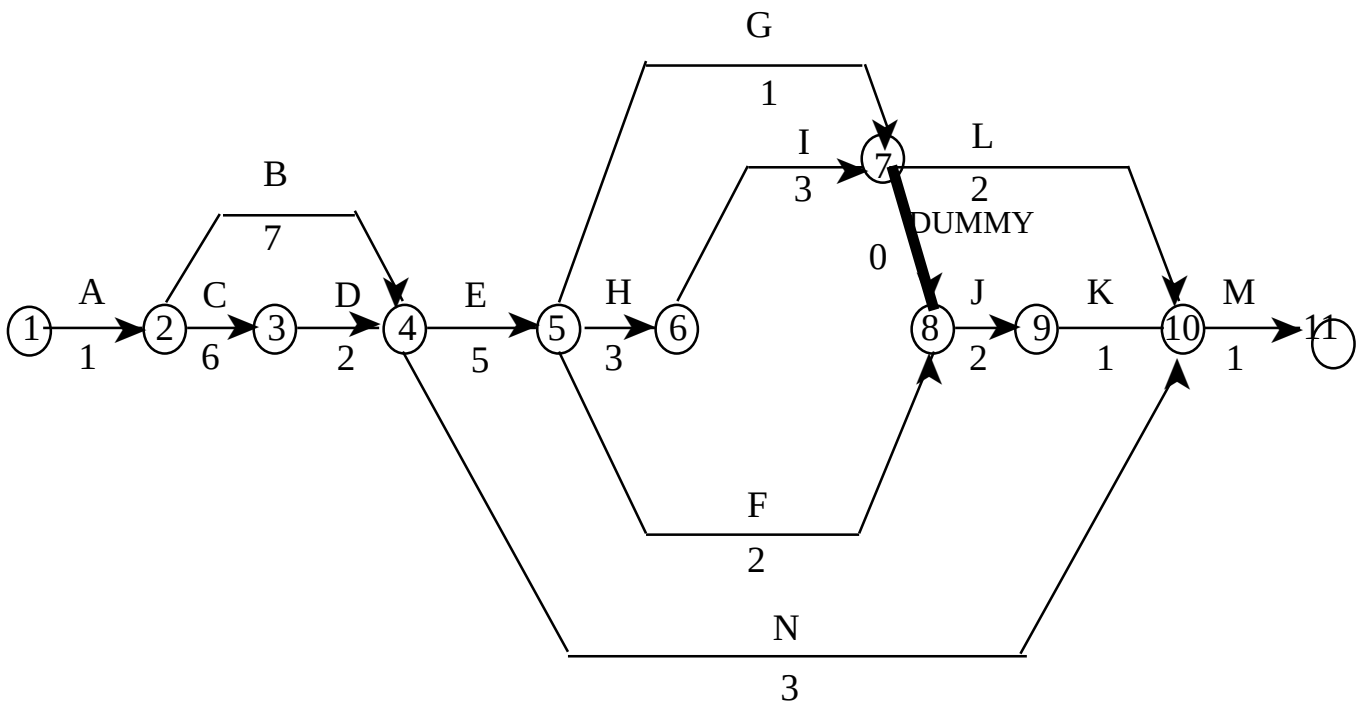


Exhibit A-10

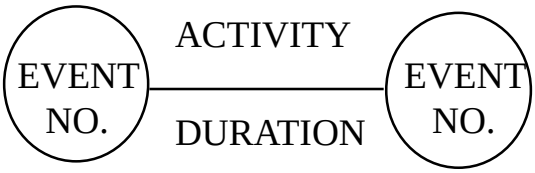
Remember: The DUMMY activity has no duration. It merely ensures the uniqueness of each activity or continues the logic.

Using the preceding principles, a network schedule of the example project "Construction of a Garage" would look like the CPM Network illustrated in Exhibit 6A-11. Notice that each activity is placed on the schedule according to the sequence established by the person who initially performed this task for you. (Refer back to Exhibit A-5 Project Activity List again.) Now that you have observed what the final product will look like (Exhibit A-11), an analysis will provide you with a better understanding.

CPM NETWORK



Project Activity List		
ACTIVITY	DURATION	PRECEDES
A	1	B, C
B	7	E, N
C	6	D
D	2	E, N
E	5	G, H, F
F	2	J
G	1	L, J
H	3	I
I	3	L, J
J	2	K
K	1	M
L	2	M
M	1	
N	3	M
DUMMY	0	J



LEGEND

Exhibit A-11

To test what you have learned thus far, examine the relationship between activities E, F, G, H, I, J, and L shown in Exhibit 6A-11. Try and construct this portion of the network without looking at the diagram. Remember to select an activity and ask yourself the two basic questions covered in Principle Two.

- Which activities must be completed before this one can start?
- Which activities cannot start until this one is completed?

Begin by asking yourself which activities depend upon activity E? Look at the PROJECT ACTIVITY LIST. It shows that activities G, H, and F cannot start until activity E is complete.

Or, which activities must be completed before G can start? On the Project Activity List (Exhibit A-5) look at the column titled "Acty/ Name" and locate the place where G appears. The answer is E. What about H and F? Again, if you look at the column "Acty/Name" you will see that activities H and F depend upon E. Therefore, the illustration in Exhibit A-12 supports that logic. Study it carefully.

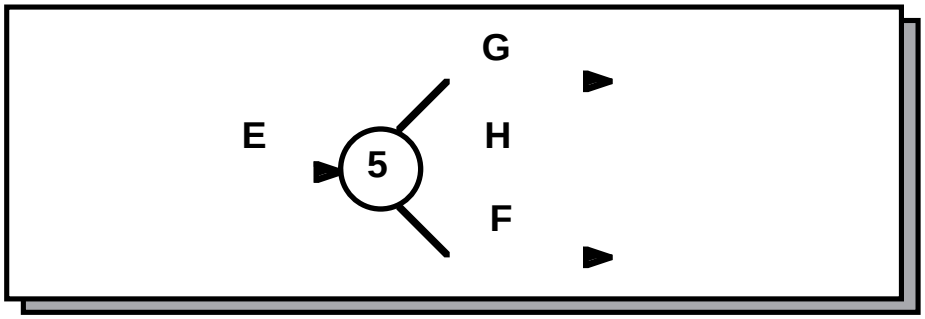


Exhibit A-12

Now identify which activities cannot start until H is complete. Which activities depend upon activity H? *(The answer is "I").* Or, which activities must be completed before "I" can start? *(The answer is H.)* You can now place activity "I" on the diagram as shown in Exhibit A-13.

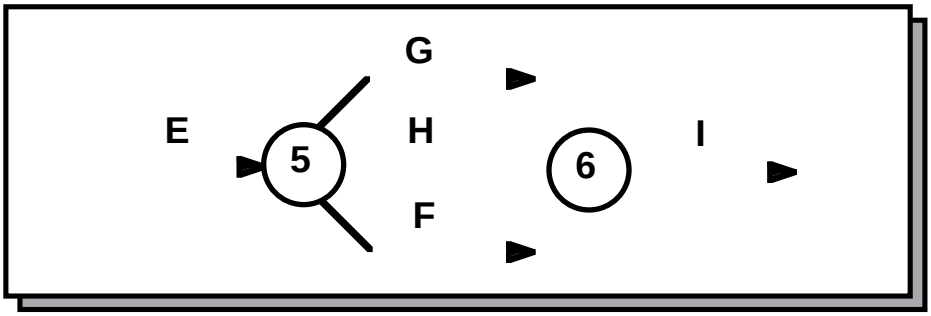


Exhibit A-13

Now look at activity F. Which activities cannot start until F is complete? *(The answer is J.)* Also, which activities must be completed before J can start? *(The answer is F, G, and I.)* Therefore, the network would look like that illustrated in Exhibit A-14. **A problem exists with this illustration**. Can you find the problem? If you identified the problem as a duplication of the "I-J" codes for activities G and F, your perception of the numbering dummy is excellent. (Remember from Principle 3 that no two activities can have the same "I - J" codes.)

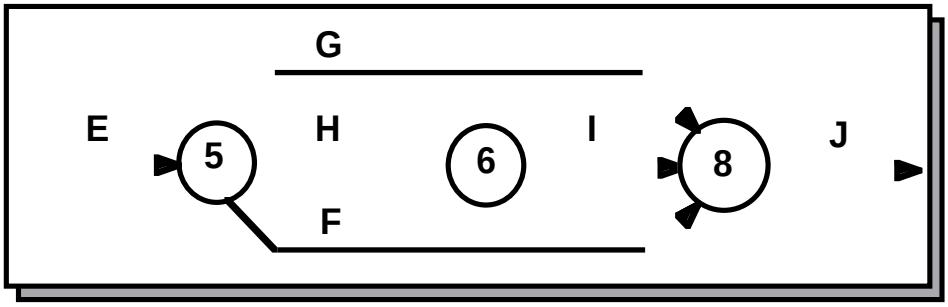


Exhibit A-14

Now try to reconstruct the diagram correctly. If your diagram is identical to the one shown in Exhibit A-15, you have understood the principle. If your diagram is not correct, return to principle 3 and review the numbering and logic dummies again. You can now determine how activity G fits into the schedule.

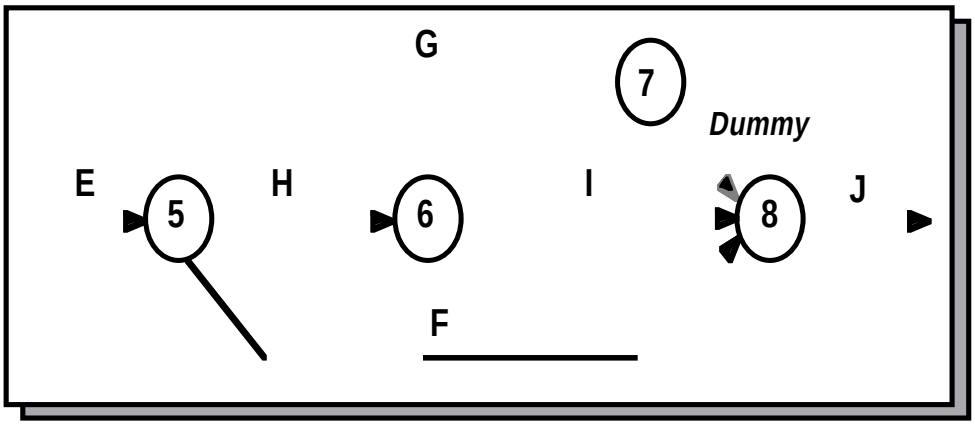


Exhibit A-15

Which activities must be completed before L can start? *(The answer is G and I.)* However, if you should try to illustrate this in your current logic, you will have a problem because L depends upon G and "I" but not F. Notice that Exhibit A-16 below shows that L is dependent on F as well as G and "I". You can solve this problem by logic. Activity L follows G and I. Activity J follows G, I and F. Study Exhibit A-16. It illustrates both the correct and incorrect logic.

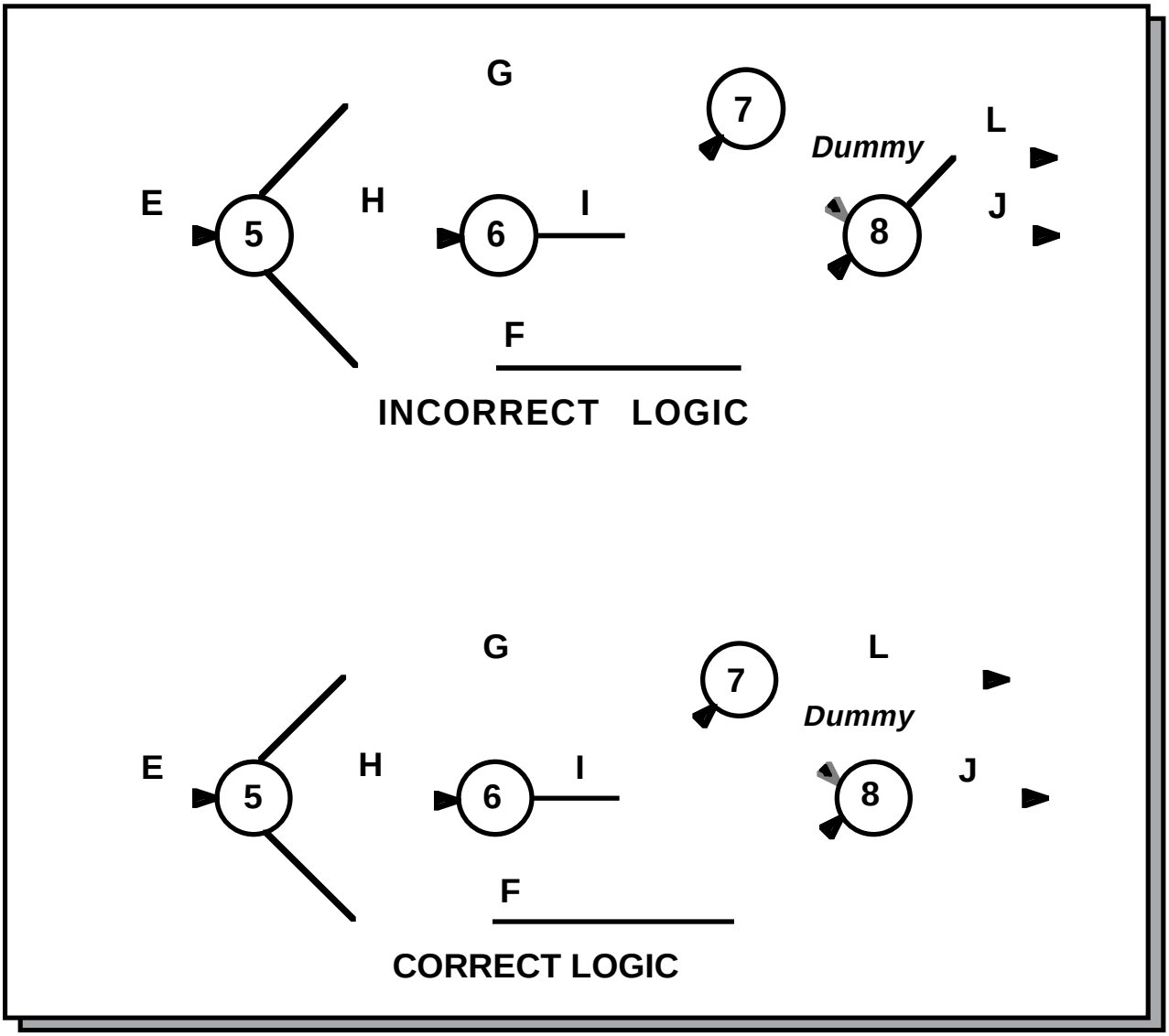


Exhibit A-16

Exhibit A-17 provides a summary of network development.

NETWORK DEVELOPMENT SUMMARY

Before proceeding further, review the summary of information presented thus far:

- Activities are specific tasks in the project which have a duration.
- The order in which activities are completed is called the precedence.
- Activities are illustrated on a project diagram as arrows. They begin at an event and end at another event.
- When adding an activity to the project diagram you must ask yourself two questions:

  ① Which activities must be completed before this activity can be started?
  ② Which activities cannot start if this activity is not completed?

- These two questions can be answered by looking at the order of precedence on the Project Activity List.
- Numbering dummies are used to ensure that the activities follow one another according to the order established in the Project Activity List.

Exhibit A-17

CPM Network Calculations

CPM is useful in many ways, such as determining the:

- **Impact of delaying** a specific activity on the project completion date
- **Earliest date** the project can be completed.
- **Latest date** the project should be completed if no changes occur.
- **Critical activities** in the project for completing the project on or before the completion date.

Basic Computations on Time

The basic computations in CPM to determine a time schedule consists of simple addition and subtraction. The computations are known as the "forward pass" and the "backward pass". These two computations will develop the time boundaries for each activity.

By making a forward pass and a backward pass through the network, early start and late start times, and early finish and late finish times, and the critical path are established.

Early Start and Early Finish

You may begin by determining the earliest an activity can start. The Early Start Time (EST) for the first activity will be day 0. By adding the duration of each activity to the earliest time it can start, you can determine the earliest time the activity can finish. Remember, this is called the Early Finish Time (EFT). The information obtained will reveal the earliest time the next activity can start.

Early Finish Time = Early Start Time + Duration

EF T= EST + DUR

The EST for activity A (in your example project) is 0 because it is the first activity. Notice that the EFT for activity A is 1 and the EST for activity C is also 1. The EST for an activity is the latest of any EFT leading into the activity. To help clarify this point, examine event number 4 on the Project Activity List in Exhibit A-11. Activity E depends upon activities B and D.

To determine the EST for activity E, you must choose between the EFT for both activity B and the EFT for activity D. Activity B has an EFT equal to 8, D has an EFT equal to 9. **Always choose the latest finish.** Therefore, the EST for activity E is 9. This will also be the EST for activity N since it begins at the same event. Before proceeding calculate the EFT for activities K, L and N.

Example:

EFT for L will be the EST at any event plus the duration of L.

(EFT(L) = 20 + 2 = 22)

EFT(K)=(EST at event 9) + (Duration of K)

(EFT (K) = 22 + 1 = 23)

EFT (N) = (EST at event 4) + (Duration of N)

(EFT (N) = 9 + 3 = 12)

Now, calculate the EST for activity M. The EST for M is the largest EFT of all activities that it depends upon. The largest EFT is for activity K. Therefore, the EST for M is 23.

Late Start and Late Finish

By starting with the last EST (activity M) you can now calculate the late start time (LST) and late finish time (LFT) for each activity. R*emember, this is the latest an activity can start or finish without changing the project completion date.* Refer to Exhibit A-17, entitled "Backward Pass". Remove it from your text. You will need to refer to it often during this part of the instruction.

The LFT at the end of a project is equal to the last EST at the end. The last EST at the end of activity M is 24. Think of it this way: The earliest date that any activity after M could start would be day 24. This is the latest activity that M can end without changing the project duration.

To calculate the LST, simply subtract the duration.

Latest Start Time equal Latest Finish Time minus the duration

(LST = LFT - DUR)

The LST for activity M is the late finish time, (day 24), minus the duration (1 day).

Latest Start Time (M) equal Latest Finish Time (M) minus the duration

LST (M) = LFT (M) - Duration (M)

(LST (M) = 24 - 1 = 23)

The LFT for K is equal to the LST for M (23). To calculate the LST for K, subtract the duration of K from the LFT for K.

Latest Start Time (K) = Latest Finish Time (K) <u>minus</u> the Duration (K)

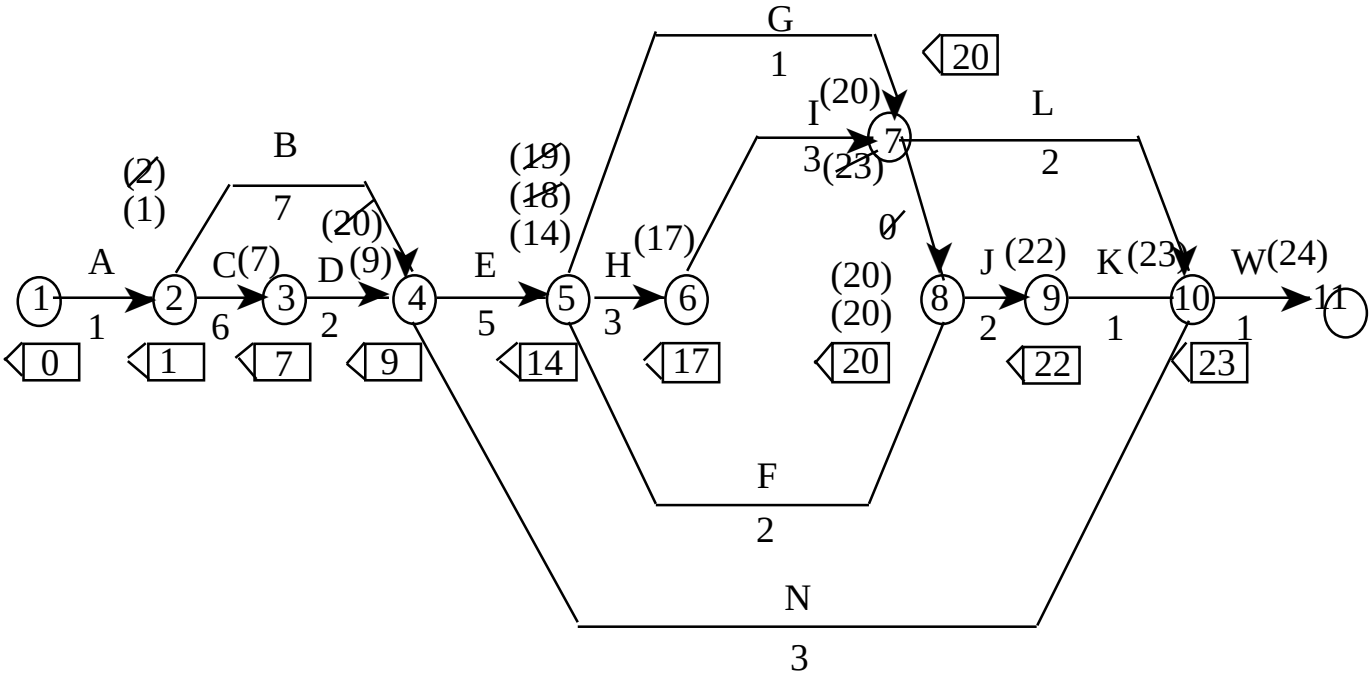
(LST (K) = LFT (K) - Duration (K))

Latest Start Time (K) = 23 minus 1 = 22

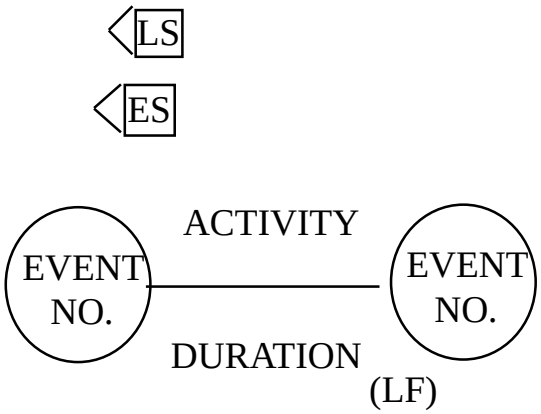
(LST (K) = 23 - 1 = 22)

Continue this process <u>backwards</u> through the network to calculate the LFT and LST for <u>each</u> activity. Notice that when two or more activities begin from the same event, a decision must be made as to which LFT is correct. <u>You can have only one LST at each event</u>. Therefore, choose the smallest possible LFT. As an example, look at event 5. As you work backwards along the network through activity G, calculate a LFT for activity E of 19. Along the pathway through H the LFT for E would be 14. Through activity F the LFT for E is 18. You now have <u>three</u> late finish times (LFT) to choose from. The correct LST for these three activities is equal to the earliest (smallest) LFT, or 14.

BACKWARD PASS



ACTIVITY	DURATION	ES	EF	LS	LF
A				0	1
B				1	9
C				1	7
D				7	9
E				9	14
F				14	20
G				14	20
H				14	17
I				17	20
J				20	22
K				22	23
L				20	23
M				23	24
N				9	23
DUMMY				20	20



LEGEND

Exhibit A-17

Before proceeding, calculate the LST at event 2 for B and C.

LFT for path B = LST(B) - Dur B
LFT (B) = 9-7
LFT (B) = 2

LFT for path (C) = 7-6
LFT (C) = 1

Choose the smallest LFT. The latest event 1 can finish is day 1.

Take time to notice what the Early Finish time is for activity M. This is the last activity in the project. It has an EFT of 24 days. *Therefore, you now know the earliest possible project completion date is 34 days. Remember that this completion date is based upon the planner's original estimate of durations for each activity.* The very nature of a construction project necessitates change from the unexpected as well as the expected. Some of the primary factors which influence changes in the schedule are:

- Added or deleted work.
- Delays.
- Strikes.
- Weather problems.
- Sequence changes.
- Unanticipated sub-surface conditions.
- Acceleration.

In a typical construction project the number of activities which fall on the critical path is generally between 2% and 10% of the total number of activities. On large projects the number could be as many as 20%.

Critical Path

In the final network, there must be at least one path of activities and events wherein the EST is equal to the LST. This is called the "Critical Path" (CP). It is nothing more than the longest path through the network. It is the path that determines the project duration. Any change in a duration on the CP will impact the project completion date. An activity must meet three conditions to be on the CP:

1. The LST must equal the EST time at the head of the activity arrow.
2. The LST must equal the EST time at the tail of the activity arrow.
3. LST at head of activity minus LST at tail must equal the duration. (**LST (H) - LST (T) = Duration)**

Notice that activity B in Exhibit A-17 is not on the critical path because it does not meet condition Number 3.

Float

There is one final step in the computation. This is referred to as computing "float" or "slack" time. Activities not on the critical path have some amount of flexibility in their completion. You may be able to complete the activity early or late without changing the project completion date. This amount of flexibility is called "Float". A critical activity has zero float. All non-critical activities may have float ranging from zero to a high of only one less than the project duration.

Look at activity N in Exhibit A-17. Activity N starts at event 4 and ends at event 10. It will require only 3 days to complete.

The activities on the critical path between events 4 and 10 require a combined duration of 14 days to complete. The difference between these two durations (14 - 3 = 11) is the float available to activity N. Activity N could be delayed 11 days without changing the project completion date. A simple way for you to calculate the float for an activity is to use the following formula:

FLOAT = (LFT - DURATION) - EST

The process of calculating these dates is time consuming and tedious if done manually. Fortunately, the development of personal computers has offered some relief in performing some of this task. The only information that you need to input into the computer is the activity name, duration, order of precedence, and the earliest start date for the project. On the basis of this information, the computer will calculate all of the start dates, finish dates, float, and the critical path.

Conclusion

Remember, the network is only as good as the information used in developing the network. The true value of a network diagram is measured in the number of activities, how well activities are identified, their durations, and their order of precedence.

SECTION 3

PROGRAM EVALUATION REVIEW TECHNIQUE

Difference from CPM

The CPM process creates a project schedule network composed of work activity arrows which are tied together in a sequence presenting a logical flow of work and logical dependencies between the work activities. The mathematical calculations of the forward and backward passes throughout the network ultimately indicates the work activities which must be completed on time. This is the critical path. All other activities have float time which could ultimately be used up in a delay of the particular activity and not affect the project's completion date. For small projects, or projects which involve very predictable activities, the CPM method as described is adequate for the management of such projects.

However, when a project is composed primarily of activities whose actual duration times are subject to considerable chance variation, the **Program Evaluation Review Technique (PERT)** is an appropriate scheduling and control method. Because of the variability in these projects, the issue of project completion time is most critical to the project's performance. **PERT** modifies the CPM schedule to address statistical variance involved with critical path activities and possibly, "near critical" activities. For example: an activity which is expected to have a duration of 10 days, may actually be reasonably expected to vary from 8 days to 12 days when performed. Another activity in your CPM schedule might also be expected to have a duration of 10 days, but could be expected to vary from 3 days to 20 days. The CPM method would use the 10 day duration for both of these activities and the calculated schedule and critical path would ignore the potential variances just described.

The advantage of the **PERT** statistical approach is that it offers a method of dealing with this chance variation in the schedule calculations and possibly calculating the probability that the project will be completed on or before the scheduled completion date.

The **PERT** scheduling method is identical to the **CPM** method in that :

- A network of activities and logic ties is prepared for the project
- A forward and backward pass mathematical calculation will determine the critical path.

The difference between the two methods lies in the activity duration used in the calculation.

Using the schedule developed for the garage project once more, the **CPM** exercise used activity durations of specific or deterministic lengths. These specific durations provided by a competent planner or manager of such projects makes sense; Certainly the garage project is simple. Most likely the contractor, or the manager of this project has managed many like projects in the past. The person planning this schedule has great confidence in the activity duration forecasts.

For the sake of this exercise in **PERT**, let us pretend this garage project has the great risks of a much larger and more sophisticated project. Although our scheduler may have great expertise, this project may have activities which are much more difficult to forecast for many reasons. A more sound scheduling approach would be to forecast an expected duration for each activity and somehow have a schedule developed which acknowledges potential variance of the activities, especially those which make up the critical path. In order to achieve this, our scheduler must focus on each work activity independently and come up with three potential durations:

a: The optimistic performance time; The time which is the shortest possible duration for the activity. A duration which could only be bettered possibly one in twenty occurrences.

m: The most likely performance time; The duration which is most likely to occur more often than any other.

b: The pessimistic performance time; The time which is the longest possible duration for the activity. A duration which could be exceeded only one in twenty occurrences.

The three listed duration predictions are utilized to arrive at an average or mean value for the duration of the activity, the expected duration;
$\mathbf{t_e}$. $\mathbf{t_e = (a+4m+b) / 6.}$

Likewise the variability of the activity's duration is known as a standard deviation from the mean;

$\mathbf{v_t}$. $\mathbf{v_t = (b-a) / 3.2}$.

Now let us use the garage construction project network and apply the **PERT** method for calculating the activity durations and their variability. Exhibis A-18 is the network logic diagram. It is identical to the network presented earlier for the **CPM** overview. The network's logic will be used in a **CPM** method of calculating a forward and a backward pass calculation to determine the critical path.

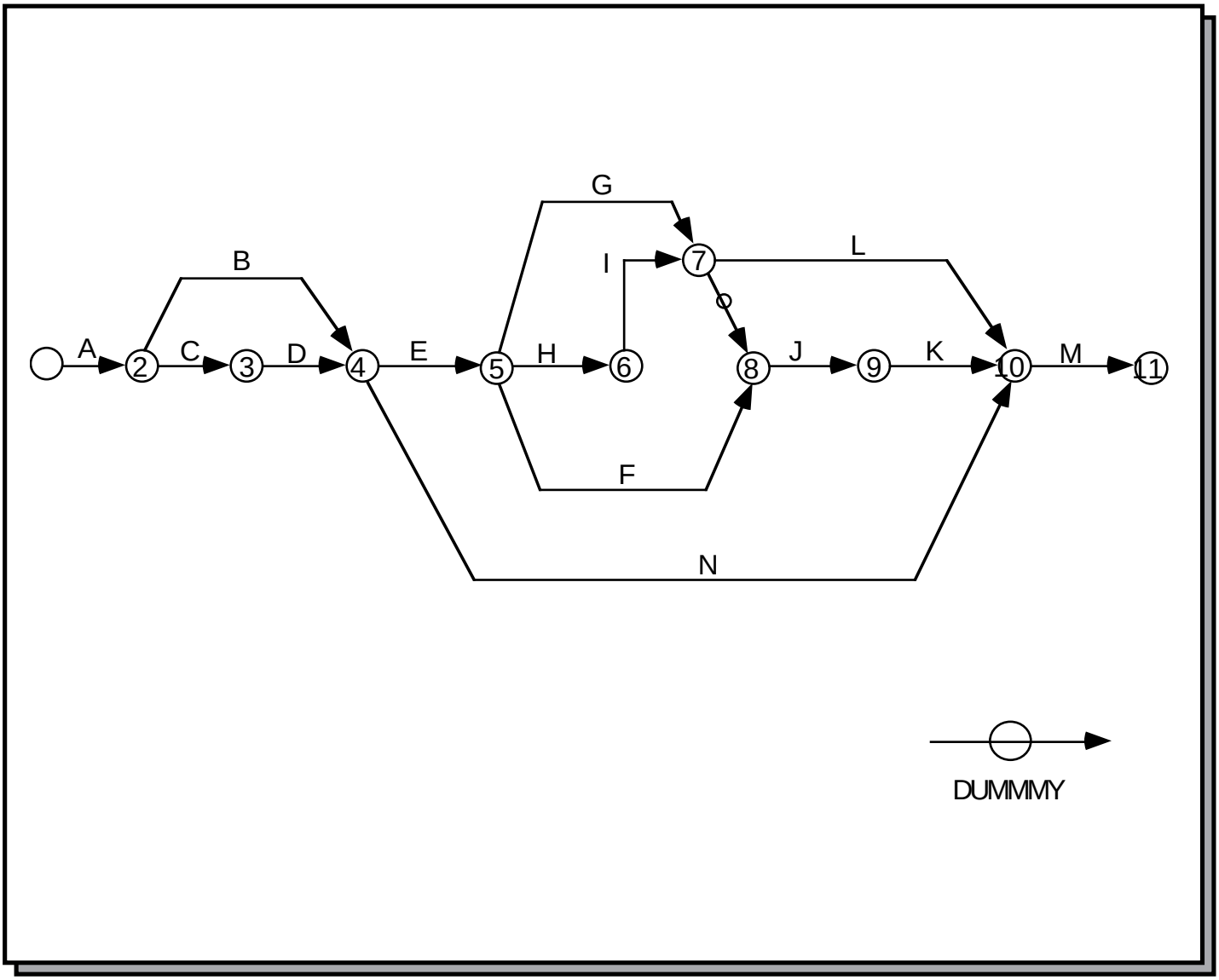


Exhibit A-18

Exhibit A-19 is a table of the estimator's three duration predictions (**a**: the optimistic, **b**: the pessimistic, and **m**: the most likely activity duration). To the right of these predictions or estimations is the calculated "expected" duration: $\mathbf{t_e}$ and the standard deviation , $\mathbf{v_t}$, or variability factor associated with the activity's estimated duration.

PERT ACTIVITY LIST

ACTIVITY	DURATIONS			EXPECTED	STANDARD
	A- OPTIMISTIC	M - MOST LIKELY	B - PESSIMISTIC	DURATION **Te ***	DEVIATION **vt ****
A MOBILIZE	1	2	3	2	0.625
B DELIVER MATL	3	6	10	6	2.1875
C EXCAVATE & FORM FOOTINGS	2	5	11	6	2.8125
D POUR FOOTING	1	2	3	2	0.625
E ROUGH FRAMING	2	5	9	5	2.1875
F ROUGH ELECTRICAL	1	2	4	2	0.9375
G INSTALL DOOR & WINDOW	1	2	3	2	0.625
H INSTALL ROOF	2	3	5	3	0.9375
I INSTALL SIDING	2	3	4	3	0.625
J PAINT INTERIOR	1	2	5	2	1.25
K FINISHED ELECTRICAL	1	3	4	3	0.9375
L PAINT EXTERIOR	2	3	5	3	0.9375
M CLEAN UP	1	2	3	2	0.625
N CONSTRUCT DRIVEWAY	2	3	4	3	0.625

* Te DURATIONS HAVE BEEN ROUNDED TO THE NEAREST FULL DAY

** STANDARD DEVIATION IS EQUAL TO THE SQUARE ROOT OF Vt (VARIANCE)

Exhibit A-19

With these expected durations, we can now conduct our mathematical passes through the schedule network and calculate or determine the activities which make up the project's critical path. You are encouraged to practice these calculations yourself to further reinforce your familiarity with **CPM** calculations. The resultant critical activities, their durations and standard deviations are shown in Exhibit A-20.

CRITICAL PATH ACTIVITIES	EXPECTED DURATION	STANDARD DEVIATION
A MOBILIZE	2	0.63
C EXCAVATE & FORM	6	2.81
D POUR FOOTING	2	0.63
E ROUGH FRAMING	5	2.19
H INSTALL ROOF	3	0.94
I INSTALL SIDING	3	0.63
J PAINT INTERIOR	2	1.25
K FINISH ELECTRICAL	3	0.94
M CLEAN UP	2	0.63
TOTAL VALUES	28	10.625

Exhibit A-20

The project as calculated has an **estimated completion of 28 days**. The standard deviations related to these critical activities are added together to arrive at a **project schedule standard deviation of 10.625**. Statistically speaking. You can use these two values to evaluate how much you can rely on the predicted completion date. This is achieved by probability analysis using a normal distribution bell curve and the related probabilities associated to the curve. (See Exhibit A-21.)

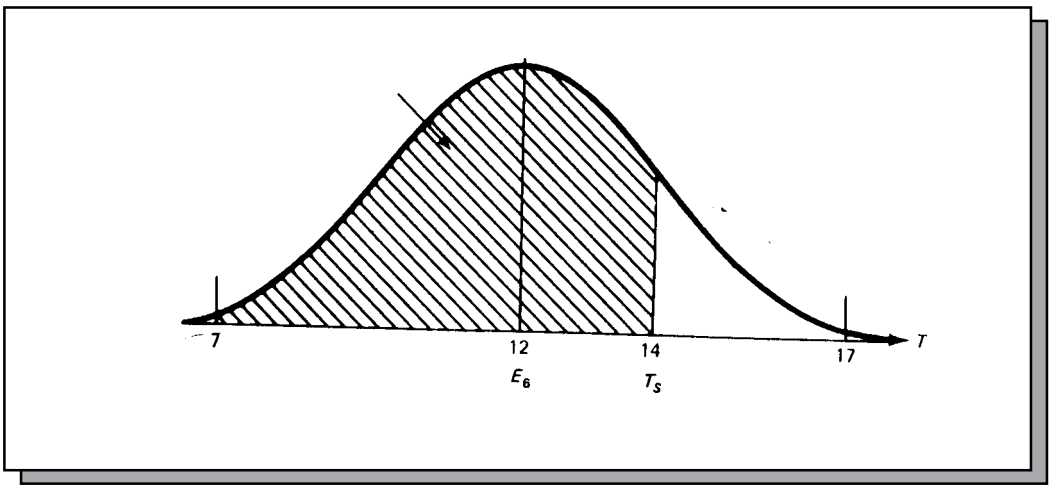


Exhibit A-21

Furthermore, let us suppose that you do not like the variability of the completion date, (i.e., the date cannot be "depended upon" statistically speaking) The project management staff can review each of the critical path activities and see which of them contributes the most to the variability or risk level. This will allow decisions to be made on different methods to accomplish the high risk activities, reducing the risk of completing the project late.

You are cautioned that the **PERT method** has underlying, complicated statistical theories and requirements which must be met in order to insure that the data produced from it is reliable. If inexperienced you must seek out adequate statistical support in order to properly create and use a **PERT** schedule.

SECTION 4

LINE OF BALANCE

Description

The Line of Balance (LOB) method of calculating progress is one that was originally developed for monitoring performance in a manufacturing environment. It can and has been successfully adapted for monitoring progress on large construction projects. It is particularly valuable in monitoring contracts that inherently require many general trade subcontracts on projects that are repetitive type, such as:

- Housing developments
- Warehouses
- Tank farms (petroleum storage)
- Pipeline construction
- High rise office buildings

Method

The Line of Balance Technique display consists of four (4) separate elements:

1. Flow process chart (Not a network).

2. Vertical bar chart (Not a scheduling type).

3. Time based, cumulative, line diagram.

4. Single date, projected comparison line, which is the OB.

Element One

The Objective "Curve" is a straight line curve, with a calendar time base and a quantitative vertical scale. The line diagram affords a simple, clear illustration of cumulative "end products" (garages) to be constructed over the total contract period.

The example shown in Exhibit A-22 indicates that the process by which each of the 240 units is to be produced consists of six activities/work items (A through F) and their individual lead times (latest starting times), which is indicated by the time position of their individual starting event symbols (square). Note that the dependency/interrelationships are indicated by the numbered ending event coordination symbol (arrow). Only the coordination symbols are numbered vertically, from top to bottom, and horizontally from left to right. These are called progress monitoring points.

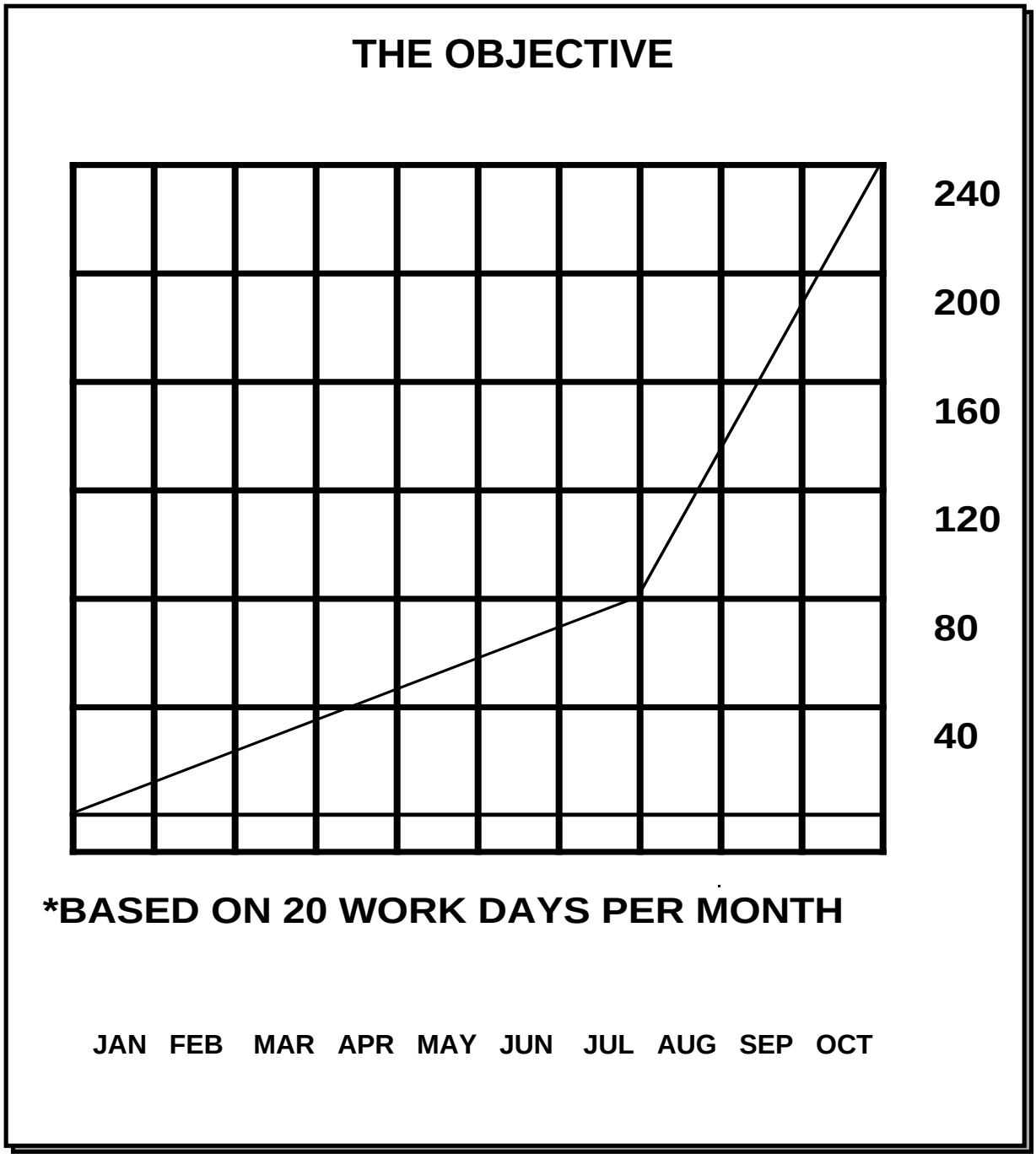


Exhibit A-22

Element Two

The Program Plan (See Exhibit A-23), which is a performance production flow diagram of all of the major work items/activities in vector form, illustrates the planned sequenced interrelationships on a lead time base scale.

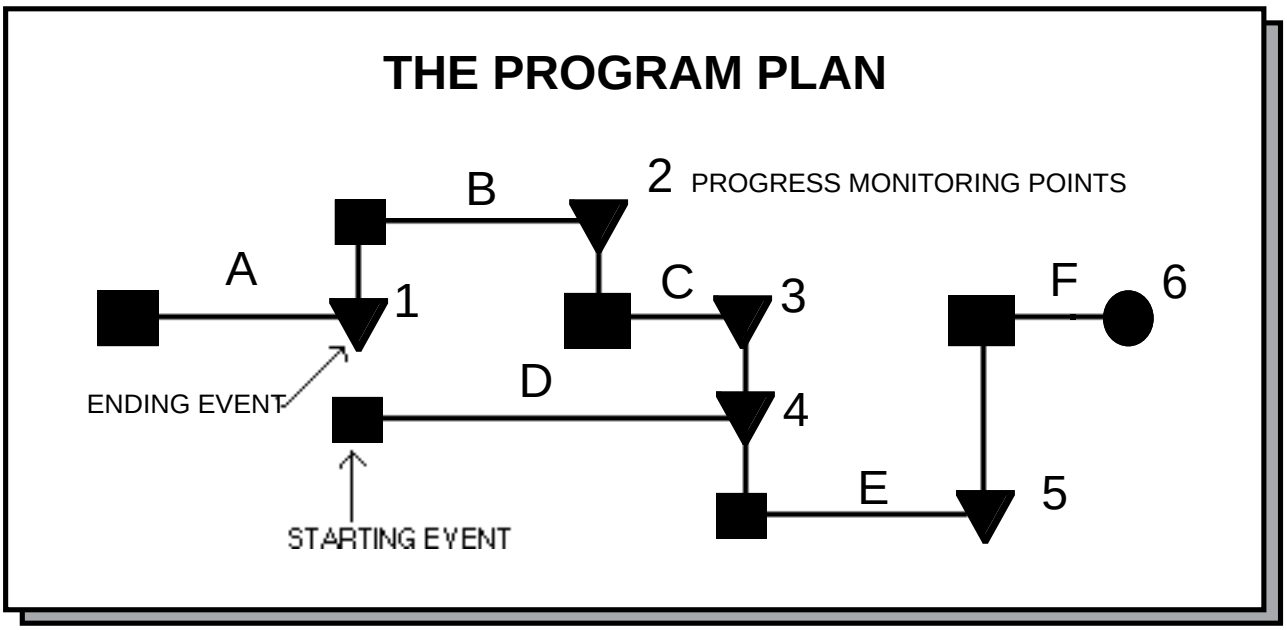


Exhibit A-23

Flow chart symbols especially adapted for construction project applications are usually projected by symbol:

- ● Procurement
- ■ Prime Contract Activity
- ⊡ Subcontract Activity
- ○ Completion
- ▶ Ending Event/Coordination Point

For purposes of illustration, let us assume that you have a housing development contract that calls for the construction of 240 detached garages, which are the same garages that have been used for illustration of CPM and PERT.

The example provided in Exhibit A-22 indicates a contract award date of 1 January; a requirement for 40 garages to be completed by 1 April; a total of 80 garages to be completed by 1 July; and the completion of all 240 units by 31 October.

Element Three

The Progress Chart is a family of vertical columns scaled, in conjunction with the objective curve element, to the quantity of garages required. The columns are numbered, from left to right to correspond to numbering of events/coordination points in the Program flow plan. Cumulative progress is then indicated by the construction of vertical bars within the numbered columns, following a site inventory. Exhibit A-24 illustrates the Progress Chart which was produced.

- 120 units are complete which is the vertical height of bar #6. Go to the Program flow chart and you will see that this is Activity F.
- Activity E is complete on 130 units, which is bar/event #5.
- Activity C is complete for 140 units, which is bar/ event #4;
- Activity B is complete on 160 units, which is bar/event#2;
- Activity A is complete on 200 units, which is bar/event #l.

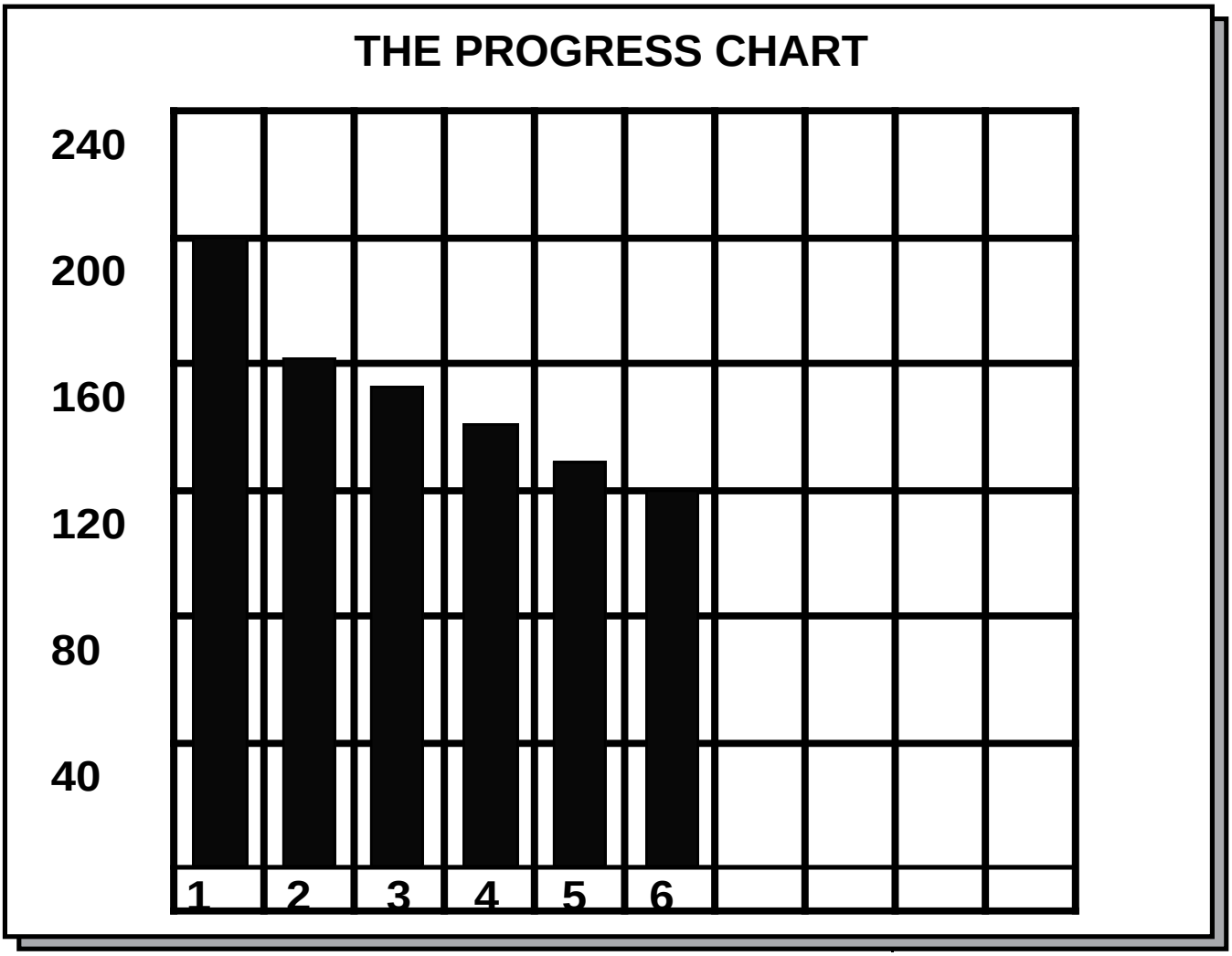


Exhibit A-24

Element Four

Now the Line of Balance can be determined. The Line of Balance is a stepped down line graph projected from the Objective curve area into the Progress Chart area. One step of the Line of Balance is projected for each activity on the status/given date. As an example Exhibit A-25 projects progress and comparison as of 1 August. The example included in Exhibit A-25 indicates all of the data needed for projecting the Line of Balance and how it is projected.

To further explain the process diagram, remember that the Objective curve which is Element # 1 in the process, represents the Total Units Planned/Expected to be completed cumulatively over the contract period. Projecting the 1 August requirements:

- Total garages (Activity F) which should be completed are found by reading the objective curve vertically on the l August line. The intersection (120 units), is projected horizontally to Column #6 for its LOB step.

- The required number of completions for Activity E (event/bar #5) is determined by its "Lead Time" which is 1 week. That is, they should be completed units one week later. Moving 1 week into the month of August and upward to the objective curve, the intersection, which is approximately 130, is projected horizontally to column # 5.

- The Lead Time for C & D is 3 weeks, moving from 1 August, 3 weeks and vertically, the intersection there is approximately 150, projected to both columns # 3 and # 4.

- The 4 weeks/1 month Lead Time for activity B projects to 1 September where the intersection 160 is projected to column #2.

- The 6 week, 30 workdays Lead Time for completion of Activity A projects to the middle of September where the intersection is approximately 180, which is projected to column #1.

- These projections in the Bar Chart area are connected in stepped down fashion to form the 1 August Line of Balance.

You can quickly see that Activity A/Event 1 is ahead of schedule for about 10 garages; Activity C/event 4 is behind schedule for about 10 of the units; and all of the others appear to be on schedule.

In determining the causes for delay, you should immediately check/correct if completion of the remaining garages to be built are not to be slowed down by the progress rate of this one activity.

APPENDIX B

"NORMAL"
METHOD OF COMPUTING OVERHEAD

Allocation of Field Overhead

Step 1. Determine field overhead (FOH) costs:

- Select an appropriate period for accumulating costs, which will normally be the contract period;
- Total the field overhead costs for the period;
- Exclude all unallowable costs;
- Exclude all unallocable costs, including one time costs such as mobilization;
- Avoid duplication of direct costs.

Step 2. Calculate the field overhead rate:

- Field overhead rate = Field overhead costs/direct costs.
- Field costs consists of direct labor plus fringes, material and equipment. Direct costs can be estimated by subtracting the following from the contract amount:
  - Bond costs
  - Profit
  - Home office overhead costs
  - Field overhead costs
- Should the contractor's field office or field office staff be utilized for other work, that other work should share in the allocation of the FOH costs.
- Calculate the rate as follows:

  FOH cost of the delay = FOH rate times the direct cost associated with the delay/modification.

Allocation of Home Office Overhead

Step 1. Determine home office overhead (HOOH) costs.

- Select an appropriate period, which should be the contractor's fiscal year.
- Look for changes to a contractor's workload during the year, major changes to the organization etc., which might affect the home office overhead costs.
- Total the home office overhead costs, excluding any unallowable costs, and any unallocable costs such as a special insurance policy which would be over and above the normal builder's risk insurance.
- Total the contractor's direct costs, excluding home office overhead and bond costs and profit for the period.

Step 2. Calculate the home office overhead rate:

- HOOH rate = Total HOOH costs/total direct costs.

Step 3. Calculate HOOH costs allocable to the delay/modification.

- HOOH cost for delay = HOOH rate times delay costs.
- Analyze results to see if they are reasonable.
  - Is too much of the contractor's HOOH being absorbed, or are you leaving too much unabsorbed?

"ALTERNATE" METHOD OF COMPUTING OVERHEAD

Small Dollar Value

This method is applicable for use for changes which are of smaller dollar value, less than $500,000. It has been developed and modified by the various agencies as an alternative to the longer more complex procedure by

estimating actual additional field and home office overhead costs on small changes when you do not have the benefit of an audit.

Standard Rates

The standard rates used have been accepted by the construction industry and are intended to be full compensation for all field and home office overhead costs. It is important for you to convey to the contractor what cost elements are included in these rates so that duplication of direct costs can be avoided. The following formula may be used:

- 10% for Field Overhead on prime's work.
- 3% for Home Office Overhead on prime's work.
- 5% for prime contractor's overhead on subcontract work.

Extreme Situations

In extreme situations these standard percentages may provide compensation which is out of proportion to the contractor's actual overhead costs. **For example**:

- If a change order involves only the purchase and installation of a very expensive piece of equipment and the installation was relatively simple, the actual overhead costs associated with such change would be much lower than average, and the standard percentages would overcompensate the contractor.

- In a delay situation, if it took 4 months to provide a redesign for a $5,000 change which was required and the work was on the critical path, these percentages may under compensate the contractor. In this example, the change might be better suited to issuing two changes, one being the $5,000 additional work with an appropriate time extension to perform that work, and one being solely as an equitable adjustment for the Government caused delay portion, which is disproportionate to the time required to do the additional work. In these examples the standard percentages would be applicable to the first portion and extended overhead would be calculated for the Government delay portion.

FIXED AND VARIABLE COST METHOD OF COMPUTING OVERHEAD

Experienced Administrators

It is recommended that this method only be used by contract administrators who have had extensive experience in dealing with construction contractor overhead. The separation of overhead costs into fixed and variable elements is considered an extra complication for first time contract administrators who are trying to understand the already complex issue of overhead.

In cases where there is both a cost increase and a time extension, if the full calculated overhead percentage for the cost increase and the computed daily rate for the Government caused delay are both applied to any single change, a partial duplication of overhead reimbursement will result. To overcome this problem, the fixed/variable cost method is a reasonable method for compensating the contractor for overhead costs without duplications. If it is to be used the contractor must provide the overhead costs separated into three categories:

1. Fixed costs which vary with time;
2. Variable costs which vary with the increase or decrease of the dollar amount of the contract;
3. One time costs that do not vary with either time or contract amount.

Field Overhead

Field overhead can be divided into fixed and variable costs:

- Fixed costs will be those costs which can be expected to continue nearly as long as the job lasts.
- Variable costs will vary with the total contract price.

You should be alert to the possibility of the same costs or functions appearing in both the home office and field overhead. Eliminate any duplications. You will also find that not all costs are that easily categorized. Some will be a combination of the two.

These may be divided to show roughly what proportion should be allocated to fixed and to variable costs, and resolve this issue at the negotiation table.

Exhibit B-1 provides examples of fixed FOH costs and variable FOH costs.

EXAMPLES OF FIXED AND VARIABLE OVERHEAD COSTS	
FIXED FOH COSTS	**VARIABLE FOH COSTS**
Salaries of Job Sup. and Field Project Manager Field office staff (full time) Vehicles used by OH personnel Basic telephone charges Rent for jobsite trailer Janitorial service Utilities Warehouse(s)	Postage Some engineering costs Long distance telephone Some office supplies Additional clerical help Additional scheduling

Exhibit B-1

Examples of one-time FOH costs that do not vary with either time or contract amount are:

- Job office trailer mobilize/demobilize costs; and
- Temporary utilities hook-up charges.

In reviewing the examples shown in Exhibit B-1, note that the value of the fixed costs far exceed the value of the variable costs. For this reason you may apply the percentage overhead represented by the variable costs to the dollar value of the change, and apply a daily rate based on the fixed costs to the time extension which is associated with the change.

If a change involves no time extension, then the contractor would only receive the variable percentage of the value of the change as the field overhead. If it is a pure and simple delay situation where there are no added costs involved, the daily rate should be applied.

Home Office Overhead

Fixed costs are those which continue to accrue as long as the contractor stays on the job. Variable costs are those which increase or decrease (at least partially) with the cost of the project. The vast majority of home office overhead costs are fixed costs. While it would be absolutely correct to separate HOOH costs into fixed and variable categories, it is acceptable to treat all HOOH costs as fixed costs, since differentiation is more difficult than with field overhead costs, and since the cost difference is small. Thus, in the fixed/variable cost method, HOOH costs are treated as fixed and are applied as a percentage of direct costs plus field overhead as in the Normal method.

DAILY RATE
METHOD OF COMPUTING OVERHEAD

Field Overhead

Field overhead is treated as an additional daily cost to the contractor for providing a field office and staff beyond the contract completion date.

1. Field overhead expenses are computed by dividing the total estimated field overhead costs, less any one-time cost, by the contract duration in order to obtain a daily field overhead rate.
2. This rate is then multiplied by the number of days of time extension to compute the total field overhead for the change.

If there is no time extension, there will be no additional field overhead with this method.

Home Office Overhead

Home office overhead is treated as a percentage of direct costs plus field overhead, as in the Normal method.

Home office overhead is not treated as a daily rate, since entitlement to a daily home office overhead charge is only justified when the contractor experiences unabsorbed overhead.

COMPARING FOUR METHODS

Variance

Exhibit B-2 illustrates how the various methods of calculating overhead may result in considerable variance from one method to another.

Method	Computations	
Normal	FOH	$949
	H00H	387
Alternate	FOH	$850
	H00H	281
Fixed/Var	F0H	$19,302
	H00H	1,140
Daily Rate	F0H	$22,500
	H00H	1,271

Exhibit B-2

You can easily see that computing by the Daily Rate method is at the far extreme of the four methods of computation, creating a high rate, whereas, the Normal method produced results on the other extreme. Remember that the method selected to compute overhead must be the one that most closely represents reality.

Exhibit B-3 shows the results of calculating overhead costs after taking into consideration unallowable and variable factors.

COMPUTING OVERHEAD COSTS

Contract Information:

Contract is for building 240 detached garages in a housing unit.
Contract amount is $1,000,000.
Contract completion date is of 365 days duration.

Contractor Information:

Total annual billings $10,000,000
Bond rate is 3%.

	Amt Claimed	Amt Allowed	Comments
Annual home office costs:			
Officers salaries	$200,000	$200,000	Fixed costs
Office rental & Utl.	30,000	30,000	Fixed costs
Support salaries	100,000	100,000	Fixed Costs
Interest	20,000	0	Unallowable
Supplies & services	80,000	80,000	Variable
Contributions	100,000	0	Unallowable
Advertising	5,000	0	Unallowable
Totals	$535,000	$410,000	
Total field office costs:			
Mobilization & demob.	40,000	0	Unallocable
Office trailer Purchase	15,000	0	Unallocable
Set up	1,000	0	Unallocable
Remove	500	0	Unallocable
Salaries	60,000	60,000	Fixed Cost
Testing Services	7,.000	7,000	Variable
Supplies	5,000	5,000	Variable
Utilities	1,200	1,200	Fixed Cost
Vehicle for Supt.	9,000	9,000	Fixed Cost
Totals	$138,000	82,000	

Exhibit B-3

APPENDIX C

GLOSSARY

CONSTRUCTION CONTRACTING TERMS

This glossary explains or characterizes terms within the general context of their intended use. There are many terms that reflect the construction management environment, and most of them are subject to coloring by circumstances and application. Very few of them are precise in meaning.

ABSOLUTE VALUE OF A CONTRACT MODIFICATION	The sum of the cost increases and cost decreases without regard to algebraic sign (e.g., a modification containing requirements increasing the contract price by $30,500 and other requirements decreasing the contract price by $32,000 would have an absolute value of $62,500).
ACASS	A computer system designed as a central repository for A/E firms to provide one location from which selection officials can gather information on an A/E firm's SF 254.
ACCELERATION	The process of intensifying the rate of progress on the work in order to meet a pre-existing deadline or to ensure early completion of a project. Acceleration can be accomplished by either (1) a formal request of the Government, or (2) by conduct of the Government that would require such action.
ACCEPTANCE FAR 46.101	(1) The act of accepting an offer. (2) The act of an authorized representative of the Government by which the Government, for itself or as agent of another, assumes ownership of existing identified supplies tendered, or approves specific services rendered as partial or complete performance of the contract.
ACCEPTANCE, FINAL	The Government's approval of the contractor's work based upon certification by the architect/engineer that the work is complete and is in accordance with contract requirements and/or final payment is made.
ACCESS TO THE WORK	The right of the contractor to enter, leave, and occupy the work site as required to reasonably perform the work described in the contract documents.
ACCORD AND SATISFACTION	An executed agreement between two parties under which one party accepts stipulated performance as a substitute performance discharging an unresolved existing obligation.
ACQUIESCENCE	A party may indicate its consent to the terms of an offer or counter offer by remaining silent and proceeding with performance.
ACQUISITION FAR 2.101	The acquiring by contract, with appropriated funds, of supplies or services (including construction) by and for the use of the Federal Government through purchase or lease, whether the supplies or services are already in existence or must be created, developed, demonstrated, and evaluated. Acquisition begins at the point when agency needs are established and includes the description of requirements to satisfy agency needs, solicitation and selection of sources, award of contracts, contract financing, contract performance, contract administration, and those technical and management functions directly related to the process of fulfilling agency needs by contract.

GLOSSARY

ACQUISITION PLANNING FAR 7.101	The process by which the efforts of all personnel responsible for an acquisition are coordinated and integrated through a comprehensive plan for fulfilling the agency need in a timely manner and at a reasonable cost; includes development of an overall strategy for managing the acquisition.
ACT #	Account number assigned by the finance office to a contract, work order or modification.
ACT OF GOD	The term "Act of God" is referred to in respect to a delay which may be encountered in a contract under the Default Clause for Construction. An extraordinary interruption by a natural cause, such as a flood or earthquake, of the usual course of events that experience, foresight, or care cannot reasonably foresee or prevent. An event in nature over which neither the Government nor a contractor has any control.
ACTIVITY	A term used in network analysis meaning a unit of work, complete in itself, performed between two stated events. One arrow represents one activity. An activity can start only when preceding activities are finished.
ACTIVITY NUMBER	A term used in network diagramming to represent a pair of event numbers used to identify an activity. As an example, Activity A, which begins at event number 2 and ends at event number 17, would be known as Activity (2, 17).
ADDENDUM	A contract requirement that is attached to the bidding documents during the bidding process.
ADDITION, EXPANSION, EXTENSION	A physical increase to a real property facility that adds to the overall external dimension of the facility.
ADDITIVE/ALTERNATE BID ITEM	When a serious doubt exists that money available for a project may fall short of the ability to make an award, additive bid items may be established by divorcing out those items which may be separated from the base bid without disturbing the usability, the function or purpose of the proposed facility. This will allow the structure of the bid to consist of a base bid, and multiple additive items to be awarded if money is sufficiently available to do so.
ADJUSTMENT IN ESTIMATED QUANTITY	A contract adjustment pursuant to a contract clause entitled "Variation in Estimated Quantity" when actual quantity varies by a percentage of the initially estimated quantity.
ADMINISTRATIVE LAW	Rules, regulations, and decisions made by instrumentalities of the Federal Government that have the force and effect of law.
ADVANCE PAYMENTS FAR 32.102(a)	Advances of money by the Government to a contractor before, in anticipation of, and for the purpose of complete performance under one or more contracts. They are expected to be liquidated from payments due to the contractor incident to performance of the contracts. Since they are not measured by performance, they differ from partial, progress, or other payments based on the performance or partial performance of a contract.
A/E SCOPE OF WORK	Also referred to as "A/E Statement of Services" meaning non physical boundaries; those defining the design effort and submittals. It is also the document that defines the boundaries of the professional services contract, conveying the intent of the design project. (Refer also to "Scope")

AFFIRMATIVE ACTION PLAN	A plan submitted with a bid, under which the bidder agrees to use its best efforts to employ certain percentages of minority workers. An affirmative action compliance requirement for construction is satisfied by a Hometown Plan.
AGENCY	One party, known as the principal, appoints another party, known as an agent, to enter into a business or contractual relationship with a third party. In Governmental contracting, the: • Government is the principal, • Contracting officer is the agent, and • Third party is the contractor.
AGENT	A person authorized to represent, in some capacity, the principal to a contract.
AGREEMENT	Negotiated understandings on terms and conditions that will be incorporated in forthcoming contracts between the two parties. By definition, an agreement does not contain all the elements necessary to be considered a contract. See Basic Agreement and Basic Ordering Agreement.
ALLEGHENY	Method for recovering unabsorbed overhead costs based on allocating and quantifying unabsorbed overhead costs upon the total amount of business performed by the contractor during a specific period of delay experienced.
ALLOCABLE COST FAR 31.201-4	A cost is allocable to a Government contract if it • Is incurred specifically for the contract; • Benefits both the contract and other work, and can be distributed to them in reasonable proportion to the benefits received; or • Is necessary to the overall operation of the business, although a direct relationship to any particular cost objective cannot be shown.
ALLOWABLE COST FAR 31.201-2	Any cost which can be included in prices, cost reimbursements, or settlements under the construction contract to which it is allocable. A cost which meets the tests of (a) reasonableness, (b) allocability, (c) consonance with standards promulgated by the Cost Accounting Standards Board, if applicable, otherwise conformity to generally accepted accounting principles, and (d) falling within specific limitations or exclusion set forth in the cost principles or coming within agreed-to-terms between contractual parties.
ALTERATION	Work required to adjust interior arrangements, or other physical characteristics of an existing facility so that it may be more effectively adapted to or utilized for its intended purpose. Additions, expansions, and extensions are not alterations.
AMBIGUOUS	Uncertainty in the meaning of the provisions of a contract, document, or specification. Mere disagreement about the meaning of a provision does not constitute an ambiguity. There must be genuine uncertainty of meaning based on logical interpretation of the language used in the contract. Generally, ambiguities in contracts are construed against the drafter of the specification.
AMENDMENT FAR 14.208	A change (correction, deletion, or addition) to any information contained in an IFB or RFP (or previous amendment thereto). The amendment becomes part of the solicitation and any resulting contract.

GLOSSARY

ANTI-DEFICIENCY ACT	A law prohibiting the obligation of money in advance of an appropriation or in excess of the amount of an available appropriation.
ANTI-TRUST VIOLATION FAR 3.301(a)	Practices that eliminate competition or restrain trade, such as collusive bidding, follow-the-leader pricing, rotated low bids, collusive price estimating systems, and sharing of the business.
APPARENT AUTHORITY	That authority which, though not actually granted, the principal knowingly permits an agent to exercise.
APPEAL NOTICE	A notice to a Board of Contract Appeals that a Contracting Officer's final decision will be appealed.
APPELLANT	One who appeals to a higher tribunal the decision of a tribunal.
APPRENTICE FAR 22.401(b)(1)	Person (1) employed and individually registered in a bona fide apprenticeship program registered with the US DOL or with a State Apprenticeship Agency recognized by DOL or (2) in the first 90 days of probationary employment as an apprentice in such an apprenticeship program, who is not individually registered in the program, but who has been certified by DOL or State Agency to be eligible for probationary employment as an apprentice..
APPROPRIATION	Authority to obligate public funds that result in immediate or future outlays.
ARBITRATION	A method for the resolution of disputes by an informal tribunal in which a neutral person or persons, with specialized knowledge of the construction industry, renders a decision on the dispute.
ARCHITECT	Person rendering professional services of an architectural or engineering nature.
ARCHITECT-ENGINEER SERVICES FAR 36.102	Means professional services of an architectural or engineering nature, as defined by State law, if applicable, which are required to be performed or approved by a person licensed, registered, or certified to provide such services. It may include other professional services associated with research, planning, development, design, construction, alteration, or repair of real property that the contracting officer determines are of an architectural or engineering nature. (i.e., Surveying, mapping, plans and specifications, value engineering, construction phase services, soils engineering drawing reviews operating and maintenance manuals, studies, investigations, tests, evaluations, consultations, comprehensive planning, program management, conceptual design, etc.)
ARROW	A symbol used in network diagramming representing a single activity or a restraint. The tail of the arrow corresponds to the start of a job and the head of the arrow corresponds to the completion.
ARROW DIAGRAM	The graphic representation of a project or part of a project in network diagramming. An arrow diagram or network displays the logic of a project and the interrelationships of the component activities.
ARROW DIAGRAM METHOD	One of two symbolic conventions used in drawing project networks. In the arrow diagram method, each activity is depicted as an ar-row, with the tail of the arrow being the starting point of the activity and the head of the arrow representing its completion. Length of arrow has no significance.

AS-BUILT DRAWINGS FAR 36.102	Means drawings submitted by a contractor or subcontractor at any tier to show the construction of a particular structure or work as actually completed under the contract. (Also known as "record drawings.")
ASSIGNMENT OF CLAIMS FAR 32.801	The transfer or making over by the contractor to a bank, trust company, or other financing institution—as security for a loan to the contractor—of its right to be paid by the Government for contract performance.
AUCTIONING FAR 15.610(e)(2)	A prohibited negotiation tactic which includes: • Indicating to an offeror a cost or price that it must meet to obtain further consideration. • Advising an offeror of its price standing relative to another offeror (however, it is permissible to inform an offeror that its cost or price is considered by the Government to be too high or unrealistic). • Otherwise furnishing information about other offerors' prices.
AUDIT FAR 52.215-2	A review of a company's accounting procedures, accounting practices, books, records, documents, and other evidence related to (a) cost or pricing data or (b) costs claimed to have been incurred or anticipated to be incurred in performing a contract.
AUTHORIZATION LEGISLATION	A law which permits the establishment or continuation of Federal programs and agencies. Authorizing legislation is normally required before the enactment of budget authority, and such authority is normally provided in a separate appropriations act.
BA 54	A GSA acronym used to describe small construction projects, repair and alterations under $1.5 million. BA 54 project funds are given as an annual appropriation, expiring funds which are projected yearly.
BUILDING EVALUATION REPORT	As used in GSA, the report documents an annual look at a building to determine its status and schedule the work that is needed to address maintenance, safety issues, etc.
BACKWARD PASS	A term used in CPM describing a method used to calculate the late start and late finish times for each activity in the schedule.
BAR CHART	Simple planning technique, sometimes referred to as a "Gantt Chart" that is widely used on construction projects as an economic control tool. It is used for the purpose of measuring, reporting and reviewing construction progress. It is a graphical presentation of work versus time. It consists of a vertical column listing major individual activities of a project, and a horizontal column illustrating time scale. A bar is then drawn representing a period of time for the beginning and ending of an activity.
BASIC AGREEMENT FAR 16.702(a)	A written instrument of understanding, negotiated between an agency or contracting activity and a contractor, that (1) contains contract clauses applying to future contracts between the parties during its term and (2) contemplates separate future contracts that will incorporate by reference or attachment the required and applicable clauses agreed upon in the basic agreement. A basic agreement is not a contract.

GLOSSARY

BASIC ORDERING AGREEMENT (BOA) FAR 16.703(a)	A written instrument of understanding, negotiated between an agency, contracting activity, or contracting office and a contractor, that contains (1) terms and clauses applying to future contracts (orders) between the parties during its term, (2) a description, as specific as practicable, of supplies or services to be provided, and (3) methods for pricing, issuing, and delivering future orders under the basic ordering agreement. A basic ordering agreement is not a contract.
BENEFICIAL OCCUPANCY	The occupancy of an uncompleted but functionally completed building, structure, or facility for its intended purpose under circumstances that are advantageous to the occupant and which produce relatively little interference with the builder in completing construction. Prior to occupancy by the user, a written agreement between the contractor and the Government is executed listing deficiencies, remaining work, and other conditions of occupancy that must be consummated.
BEST AND FINAL OFFER FAR 15.611	In competitive negotiations, proposals prepared by offerors in the competitive range following completion of discussions and receipt of a written request for BAFOs from the Contracting Officer.
BID	An offer in response to an Invitation for Bids.
BID GUARANTEE FAR 28.001	A form of security assuring that the bidder (a) will not withdraw a bid within the period specified for acceptance and (b) will execute a written contract and furnish required bonds, including any necessary coinsurance or reinsurance agreements, within the time specified in the bid, unless a longer time allowed, after receipt of the specified forms.
BID SHOPPING	Actions taken by a prime contractor to reduce subcontractor prices by disclosing the lowest bids to other potential subcontractors in an effort to obtain even lower bids.
BIDDER	An offeror who submits a bid in response to an Invitation for Bids
BILATERAL MODIFICATION FAR 43.103(a)	A modification signed by both parties, (a supplemental agreement) which is an instrument used to make negotiated equitable adjustments resulting from the issuance of a change order, or to consummate other agreements of the parties to the terms of a contract.
BOARD OF CONTRACT APPEALS (BCA)	An instrumentality of a Federal department or agency which hears contractor appeals of contracting officer decisions on claims arising under or relating to a contract subject to the Contract Disputes Act.
BOILERPLATE	A term used to describe basic documents of a construction bid including the SF 1442, provisions, representations, certifications, and Instructions to Bidders.
BOND FAR 28.001	A written instrument executed by a bidder or contractor (the “principal”), and a second party (the “surety” or “sureties”), to assure fulfillment of the principal’s obligations to a third party (the “obligee” or “Government”), identified in the bond. If the principal’s obligations are not met, the bond assures payment, to the extent stipulated, of any loss sustained by the obligee.
BRAND NAME OR EQUAL FAR 10.001	Type of purchase description which identifies one or more commercial products by brand name or other appropriate nomenclature, and which sets forth those physical, functional, or other characteristics of the named product that are essential to the Government's needs.
BREACH OF CONTRACT	Failure to perform as agreed.

BROOKS BILL	The act, P. L. 92-582, provides for (1) Government wide policy in the selection process, (2) A definition of what constitutes A/E services, (3) Method of announcing contract awards, (4) The A/E to identify who is to perform the work.
BRUCE CASE RULE	The method most often used by modern boards to determine equitable adjustment. The rule defines an equitable adjustment as "the contractor's costs, reasonably incurred".
BUILDING (or WORK) FAR 22.401	Generally means construction activity as distinguished from manufacturing, furnishing of materials (unless conducted in connection with and at the site of such building or work), or servicing and maintenance work. The terms include buildings, structures, and improvements of all types.
BUILT-IN EQUIPMENT	Equipment engineered and built into a building structure, or facility, as an integral part of the final design and as an essential part thereof.
BUY AMERICAN ACT FAR 25.102(a)	An act requiring that only domestic end products be acquired for public use, except articles, materials, and supplies • For use outside the United States; • For which the cost would be unreasonable; • For which the agency head determines that domestic preference would be inconsistent with the public interest. • That are not mined, produced, or manufactured in the United States in sufficient and reasonably available commercial quantities, of a satisfactory quality. • Purchased specifically for commissary resale.
BUY AMERICAN ACT - CONSTRUCTION FAR 25.202(a)	Requires that only domestic construction material be used in construction in the US, except when • Cost would be unreasonable; • Agency head determines that use of a particular domestic construction material would be impracticable; or • Construction material is not mined, produced, or manufactured in the US in sufficient and reasonably available commercial quantity of a satisfactory quality.
BUY-IN	Attempt to win a contract by submitting a price so low that a loss will result, with the hope of recouping the loss through change orders or a follow-on contract.
CERTIFICATE OF COMPETENCY (COC) FAR 19.601(a)	A certificate which is issued by the Small Business Administration stating that the holder is responsible with respect to all elements of responsibility, including but not limited to capability, competency, capacity, credit, integrity, perseverance, and tenacity for purposes of receiving and performing on a Government contract.
CARDINAL CHANGE	Contract change having the effect of making the work as performed not essentially the same work as the parties bargained for when the contract was awarded, and thus constituting a breach of contract by the Government.
CAUSATION	The necessary or actual result of a particular action. It is the required link between liability and recovery of damages. To prove causation, the contractor is required to show that an act or omission by the Government detrimentally affected the contractor.

GLOSSARY

CCSS	Construction Contract Support Services. A/E services contracted for after award of the construction contract. Services may consist of inspection, consultation, and/or testing.
CERTIFICATION OF CLAIM FAR 33.207(a)	The requirement under the Contract Disputes Act, that contract claims over $50,000 be accompanied by a statement which asserts that the claim is made in good faith, the supporting data is accurate and complete, and the amount requested accurately reflects the adjustment for which the contractor believes the Government is liable.
CERTIFICATE OF CURRENT COST OR PRICING DATA FAR 15.804-4(a)	Prescribed certificate required to be executed by contractors who must submit certified cost of pricing data under the Truth in Negotiations Act. The certificate states that the cost or pricing data are accurate, complete, and current as of the date the contractor and the Government agreed on the price.
CERTIFIED INSPECTION REPORTS	Certified inspection reports are those signed by approved inspectors attesting that the items inspected meet the specification requirements other than any exceptions included in the report.
CERTIFIED TEST REPORTS	Certified test reports of tests signed by qualified authorized personnel attesting that the test results reported are accurate and that items tested either meet or fail to meet the stated minimum requirements. These test reports include those performed by Factory Mutual, Underwriters Laboratories, Inc., and others.
CHANGE ORDER FAR 43.101	A written order signed by the Contracting Officer, directing the contractor to make a change that the Changes clause authorizes the Contracting Officer to order without the contractor's consent. A change order is an example of a unilateral modification (see Modification).
CHANGE, CONSTRUCTIVE	A deviation in the work caused by any action of the Government, other than a formal change order, which requires the contractor to perform work different from that specified under the contract.
CHANGED CONDITIONS	A substantial deviation in the physical conditions of the job site from that anticipated in the contract documents or from conditions typically expected to be encountered on such a project.
CIVIL WORKS PROJECT	(Other than a Corps of Engineer Civil Works Project) Construction of a building or facility which is awarded by a contract issued by other than the command or agency who is overseeing the project. It usually is a cost type contract, known as a civil works subcontract which is subject to oversight and review by a third party.
CIVILIAN AGENCY ACQUISITION COUNCIL (CAAC) FAR 1.201-1(b)	A council chaired by a representative of the GSA and consisting of members representing twelve civilian agencies, which, along with the Defense Acquisition Regulatory Council (DARC), has responsibility for maintaining the FAR.
CLAIM FAR 33.201	A written demand or written assertion by one of the contracting parties seeking, as a matter of right, the payment of money in a sum certain, the adjustment or interpretation of contract terms, or other relief arising under or relating to the contract.
CLOSEOUT FAR 4.804	The process for closing out the contract file following physical completion (i.e., discharge) of a contract; includes for example, review of funds status, disposition of classified material, disallowed costs are settled, subcontracts settled by the prime, contract audit is completed, etc.

CODE OF FEDERAL REGULATIONS (CFR)	Codification of rules published in the Federal Register by the executive departments and agencies of the Federal Government.
COLLUSION FAR 52.203-2)a)(1)	Any consultation, communication, or agreement between two or more offerors or competitors relating to proposed prices, the intention to submit an offer, or the methods or factors used to calculate the prices offered.
COMMERCE BUSINESS DAILY FAR 5.101	A publication of the U.S. Department of Commerce in which Government agencies are required to announce (IFBs and RFPs) procurement invitations, contract awards, and sales of surplus property. A new edition of the CBD is issued every business day. Each edition contains approximately 500-1,000 notices. Each notice appears in the CBD only once.
COMMERCIAL ITEM DESCRIPTION (CID)	A form of simplified product purchase description for commercial off-the-shelf commercial type products for repetitive acquisition purposes. Intended to be used as an alternative to detailed Federal Specifications. May be applicable to equipment to be furnished in conjunction with a construction project.
COMMON LAW	Decisions handed down by judges in courts of law.
COMP. GEN.	The Comptroller General of the United States or the official reports of the decisions of the Comptroller General.
COMPETENT	An agent for a contracting party who, at the time of agreement to a contract, is: • Of sound mind, • Free of the influence of drugs or alcohol, and • Otherwise legally authorized to enter into the agreement on behalf of the party.
COMPETITION IN CONTRACTING ACT	Federal law, effective in 1985, designed to promote full and open competition, which brought about several significant changes, such as the elimination of the bias for formal advertising in favor of negotiation as a primary procurement method.
COMPETITIVE NEGOTIATION	One of two basic procurement methods, this means of contracting is used when sealed bidding cannot be employed. It (1) is initiated by a request for proposals which sets out the Government's requirements and the criteria for evaluation of offers, (2) contemplates the submission of timely proposals by the maximum number of possible offerers, (3) usually provides discussion with those offerers found to be within the competitive range, and (4) concludes with the award of a contract to the one offerer whose offer, price and other factors considered, is most advantageous to the Government.
COMPETITIVE RANGE FAR 15.609(a)	All proposals that the CO determines have a reasonable chance of being selected for award, based on cost or price and other factors that were stated in the solicitation. Unless the CO decides to award without discussions, the CO must conduct written or oral discussion with all responsible offerors who submit proposals within the competitive range.
COMPLETION DATE	A term used in construction contracts specifying the date when all work on the project is to be finished and the Government is to assume use of the project.

GLOSSARY

COMPONENTS FAR 25.201	In the application of defining construction materials in the Buy American Act, "components" means those articles, materials, and supplies incorporated directly into construction materials.
CONCURRENT DELAYS	That occasion when Government caused delays are concurrent or intertwined with other delays for which the Government is not responsible.
CONSENT OF SURETY FAR 28.001	An acknowledgement by a surety that its bond given in connection with a contract continues to apply to the contract as modified.
CONSIDERATION	Anything of value that changes hands between the parties to a contract.
CONSTRUCTABILITY, OR BIDDABILITY	The ease with which a designed project can be built and the ease with which the contract documents can be readily understood, bid, administered and enforced.
CONSTRUCTION FAR 36.102	Means construction, alteration, or repair (including dredging, excavating, and painting) of buildings, structures, or other real property, including improvements of all types. (See also FAR 22.401 and 22.502)
CONSTRUCTION CONTRACT SCOPE	Means the actual physical boundaries of the work to be performed, such as the building and all of the site work performed. (Refer also to "Scope)
CONSTRUCTION ENGINEER	An employee of the Government who may be optionally assigned to a project as a representative of the contracting officer during the construction phase. It may be a full time assignment, or a periodic assignment.
CONSTRUCTION ESTIMATE	Frequently referred to as a "brick and mortar" estimate, is based on a detailed analysis of construction methods, temporary construction facilities, as well as material, labor and equipment requirements.
CONSTRUCTION MANAGEMENT SERVICES CONTRACTOR	Acts as the Government's agent in supervising and coordinating all aspects of a construction project from beginning of design to the end of construction, or in the same capacity on any one of the elements.
CONSTRUCTION MATERIAL FAR 25.201	An article, material or supply brought to the construction site for incorporation into the building or work; also includes an item brought to the site pre-assembled from articles, materials, and supplies.
CONSTRUCTION QUALITY MANAGER (CQM)	Contractor selected to assist the contracting officer by performing the pre-design, design, procurement, construction phase and post construction claims services specified in the contract. The CQM is solely responsible for construction means, methods, sequence and procedures used in the construction of a project and for related performance in accordance with the contract.
CONSTRUCTION SURVEILLANCE SERVICES	Contract services in which professional or nonprofessional personnel perform specified inspection and or testing of a contractor's work, which is independent of the construction contract.
CONSTRUCTION WORK (EEO) FAR 22.801	Construction, rehabilitation,alteration, conversion, extension, demolition, or repair of buildings, highways, or other changes or improvements to real property, including facilities providing utility services. Term also includes the supervision, inspection, and other on site functions incidental to construction.

CONSTRUCTIVE ACCELERATION	Constructive acceleration occurs when: (1) the contractor encounters an excusable delay; (2) the contractor requests an extension; (3) the Government refuses the request; (4) the Government orders the contractor to comply with the original schedule; and (5) the contractor accelerates the pace of its work in order to meet that schedule.
CONSTRUCTIVE CHANGE ORDER	The conduct, circumstances, or instruments, oral or written acts, or omissions by the Contracting Officer (or other authorized Government official), which are of such a nature that they are construed or inferred to have the same effect as if the Contracting Officer had issued a formal written change order under the Changes Clause.
CONTINGENCIES	Funds reserved to support unforeseen changes or hidden costs to be encountered in a to a construction contract resulting from mandatory and optional changes.
CONTINGENT FEE FAR 3.401	Any commission, percentage, brokerage or other fee that is contingent upon the success that a person or concern has in securing a Government contract.
CONTRACT FAR 2.101	A mutually binding legal relationship obligating the seller to furnish supplies or services (including construction) and the buyer to pay for them. It includes all types of commitments that obligate the Government to an expenditure of appropriated funds and that are in writing.
CONTRACT CLAUSE FAR 52.101(a)	A term or condition used in contracts or in both solicitations and contracts, and applying after contract award or both before and after award. Clauses state the rights and obligations of the parties to a contract.
CONTRACT DISPUTES ACT FAR 33.202	Public Law 95-563 (of 1978) which established procedures and requirements for asserting and resolving claims by or against contractors arising under or relating to a contract. It provides for the payment of interest on contractor claims.
CONTRACT EXECUTIVE	A person employed in a CQM contract who is the principle CQM employee responsible for overall direction, coordination and accomplishment of CQM contractual functions on a project, working closely with the the A/E and the Contracting Officer.
CONTRACT MODIFICATION FAR 43.103	Any written change in the terms of a contract. Unilateral modifications are signed only by the contracting officer; bilateral by contractor and contracting officer.
CONTRACT SCOPE	Physical extent of the construction work as described in the general intention and/or general description paragraphs of the specifications for the particular bid item or items of work called for by the contract.
CONTRACT TYPE FAR 16.101	The name of the compensation arrangement established by the terms and conditions of the contract, such as Firm-Fixed-Price, Fixed-Price Redeterminable, Cost-Plus-Award-Fee, Cost-Plus-Fixed -Fee, or Cost-Plus-Incentive-Fee. The name of the ordering arrangement established by the terms and conditions of an indefinite delivery contract, such as Definite Quantity, Indefinite Quantity, or Requirements.
CONTRACT WORK HOURS & SAFETY STANDARDS ACT FAR 22.403-3	A law that forbids, in construction contracts over $2,000, allowing any laborer or mechanic to work more than 40 hours per week, unless overtime wages are paid, and the overtime pay must be not less than l and l/2 times the regular pay.

GLOSSARY

CONTRACTING FAR 2.101	The purchasing, renting, leasing, or otherwise obtaining supplies or services from nonfederal sources. Contracting includes description of supplies and services required, selection and solicitation of sources, preparation and award of contracts, and all phases of contract administration.
CONTRACTING ACTIVITY FAR 2.101	Element of an agency designated by the agency head and delegated broad authority regarding acquisition functions.
CONTRACTING OFFICER FAR 2.101	An agent of the Government (see "Agency") with authority to enter into, administer, or terminate contracts and make related determinations and findings.
CONTRACTING OFFICER'S REPRESENTATIVE (COR)	A Federal employee to whom a contracting officer has delegated limited authority in writing to make specified contract-related decisions. Depending on the type of authority delegated, may be referred to as the Contracting Officer's Technical Representative (COTR).
CONTRACTOR QUALITY CONTROL (CQC)	The systematic application of the methods, inspection techniques, and testing procedures required to assure that all of the materials, equipment, and workmanship conform to the contract requirements.
CONTRACTOR'S STATEMENT OF RELEASE	A statement contained in a supplemental agreement releasing the Government from any and all liability attributable to the causes for adjustment in the instant modification to the contract.
CONTROL AMOUNT	A single, fixed dollar amount for use in sealed bid solicitations having more than one bid item. It precludes the Government from varying the amount of funds available for award in order to pick and choose among bidders after bids are opened.
CORPORATE SURETY FAR 28.202(a)(1)	A surety listed in the Department of Treasury Circular 570 as a company holding a certificate of authority as an acceptable reinsurance company.
COST	The amount of money expended (outlays) in acquiring supplies or services. The total cost of an acquisition includes: • The dollar amount paid to the contractor under the terms and conditions of the contract. • Any direct costs for acquiring the supplies or services not covered in the contract price. • Any cost of ownership not covered in the contract price. • The Government's overhead for awarding and administering the contract.
COST ACCOUNTING STANDARDS (CAS) FAR 30.302-1	Standards for the measurement, assignment, and allocation of costs to contracts with the United States Government. These standards are established by the Cost Accounting Standards Board located in the Office of Federal Procurement Policy, OMB.
COST ANALYSIS FAR 15.801	The review and evaluation of the separate cost elements and proposed profit of (a) an offeror's or contractor's cost or pricing data and (b) the judgmental factors applied in projecting from the data to the estimated costs in order to form an opinion on the degree to which the proposed costs represent what the cost of the contract should be, assuming reasonable economy and efficiency.

COST OR PRICING DATA

FAR 15.801

All facts as of the date of price agreement that prudent buyers and sellers would reasonably expect to affect price negotiations significantly. Cost or pricing data are factual, not judgmental, and are therefore verifiable. While they do not indicate the accuracy of the prospective contractor's judgment about estimated future costs or projections, they do include the data forming the basis for that judgment. Cost or pricing data are more than historical accounting data; they are all the facts that can be reasonably expected to contribute to the soundness of estimates of future costs and to the validity of determinations of costs already incurred. Examples of cost and pricing data:

- Vendor quotations.
- Information on changes in production methods and in production or purchasing volume.
- Data supporting projections of business prospects and objectives and related operations costs
- Unit-cost trends such as those associated with labor efficiency.
- Make-or-buy decisions.

COST REASONABLENESS STANDARD

FAR 31.201-3

Costs are considered reasonable if they do not exceed the amount incurred by a prudent contractor and which are generally accepted in the industry. Some factors on which a determination of reasonableness is based are (l) recognition of the costs as ordinary and necessary; and (2) restraints imposed by law, contract terms, or sound business practices.

COST REIMBURSEMENT CONTRACTS

FAR 16.301-1

Contracts that provide for payment of allowable incurred costs, to the extent prescribed in the contract. These contracts establish an estimate of total cost for the purpose of obligating funds and establishing a ceiling that the contractor may not exceed (except at its own risk) without the approval of the Contracting Officer.

CRITICAL PATH

A term used in network diagramming representing the series of connected critical activities from the beginning to the end of a project. The duration of this sequence of activities is the longest duration from the beginning to the end of the project. A delay in any activity along the critical path will delay the project.

CRITICAL PATH METHOD (CPM)

Critical Path Method is a scheduling technique which graphically illustrates the durations and interdependencies of activities necessary to complete a project. It uses a single time estimate for each network activity.

CONSTRUCTION SPECIFICATION INSTITUTE (CSI)

Format for construction specifications which is used throughout the industry developed by the Construction Specification Institute. Known as the Uniform Construction Index, the format is comprised of divisions, sections, parts, and articles.

CURE NOTICE

FAR 49.607

A notice of intent to terminate a contract for default unless the contractor "cures" the problem within 10 days (or more if authorized in writing by the contracting officer) after receipt of the notice from the contracting officer.

DAMAGES

Increased costs to one party to a contract, resulting from acts or omissions by the other party. Damages may be general (direct), special (consequential), liquidated, and punitive.

DAMAGES, GENERAL

Those flowing from a direct, natural, and immediate impact of a breach, which were reasonably foreseeable or contemplated at the time the contract was made. General damages are recoverable in all cases.

GLOSSARY

DAMAGES, PUNITIVE	Damages assessed only to serve as punishment to a party who maliciously or fraudulently causes a breach of contract and to serve as a deterrent to others. Actual malice must be proved for successful recovery.
DAMAGES, SPECIAL	Those costs that follow directly from the breach itself, but result indirectly and as a consequence of the breach. Recovery is granted if such damages were foreseeable by the parties at the time of contract execution.
DAVIS BACON ACT FAR 22.403-1	A statutory law that requires construction contractors to pay mechanics and laborers employed directly on the work site no less than the prevailing wage, including basic hourly rates and fringe benefits payments, as determined by the Secretary of Labor.
DE FACTO DEBARMENT	A term used to describe Government actions that effectively exclude a contractor from award of contracts, taken without reliance on the formal grounds of debarment.
DEBRIEFING FAR 15.1003	Informing unsuccessful offerors of the basis for the selection decision and contract award. This information includes the Government's evaluation of the significant weak or deficient factors in the offeror's proposal.
DECELERATION	In construction, a slowing of the work, occurring either as a result of a formal order to slowdown or because of conditions that force a slackening of the pace of the work.
DEDUCTIVE CHANGE	A change resulting in a reduction in contract price because of a net reduction in the contractor's work.
DEFECTIVE COST OR PRICING DATA FAR 15.804-7	Cost or pricing data that are inaccurate, incomplete, or nonconcurrent as of the date of final agreement on price between the contractor and the Government.
DEFECTIVE SPECIFICATION	Specifications that contain errors, omissions, and/or conflicts that affect or prevent the contractor's performance of the work.
DEFENSE ACQUISITION REGULATORY COUNCIL (DARC) FAR 1.202-1(c)	A council comprised of representatives of the Secretary of Defense, the Army, the Navy, the Air Force, the Defense Logistics Agency, and NASA. Among other responsibilities, this council, along with the Civilian Acquisition Council (CAAC), maintains the FAR.
DEFINITIZATION FAR 16.603-2(c)	An agreement on, or determination of contract terms, specifications, and price, thus converting the undefinitized contract action to a definitized contract.
DEFINITIZED MODIFICATION FAR 43.204(b)	A modification in which all adjustments regarding cost, time, and other considerations have been decided, and one in which no further modification to the contract regarding this change is required.
DELAY FAR 52.212-15	A delay is the time during which some part of the construction project has been extended or not performed due to an unanticipated circumstance.
DELAY, COMPENSABLE	Delay caused by actions or omissions of the Government, which entitle a contractor to an adjustment in price and/ or extension of time.
DELAY, EXCUSABLE	A delay that is caused by forces beyond the control and without the fault or negligence of the contractor.

DELAY, INEXCUSABLE	Delays that are considered within the contractor's control, such as delays due to inclement weather, but which is considered within a normal range of bad weather; subcontractor's actions; delays due to inadequate supervision of the project; or delays to to failure to obtain proper equipment, etc. An inexcusable delay is one for which the contractor assumes the risk of the cost and consequences.
DELIVERY ORDER FAR 13.101	A term used interchangeably with the term "work order" on an indefinite delivery, indefinite quantity, term, or JOC contract which is the vehicle utilized to place an order against an established contract or with Government sources of supply.
DEMOLITION CONTRACT FAR 37.300	A contract used for the demolition, salvage, or removal of buildings, structures, materials or improvements on lands under the jurisdiction of the agency involved.
DESCRIPTIVE LITERATURE FAR 14.202-5(a)	Information, such as cuts, illustrations, drawings, and brochures, which shows the characteristics or construction of a product or explains its operation.
DESIGN CONCEPT	Conceptual work of identifying and evaluating feasible technical alternatives and then developing the initial design of a construction project.
DESIGN SPECIFICATION	A purchase description that establishes precise measurements, tolerances, materials, in process and finished product tests, quality control, inspection requirements, and other specific details of the deliverable.
DESIGN-CONSTRUCT	A type of contract whereby the Government contracts with a single firm for both design, construction and sometimes management of the project after completion (i.e. housing projects).
DETAILED MANAGEMENT PLAN FAR 52.236-2	A contract management plan which must be submitted by the contractor within 30 days after award of a CQM contract which is expected to exceed $10 million. The plan is a comprehensive plan providing the contracting officer with means of an evaluation of work performed during each phase.
DIFFERING SITE CONDITIONS CLAUSE (TYPE I CONDITION) FAR 52.236-2	At variance with conditions indicated by the contract documents. To prove, a contractor must show four things (1) the actual conditions; (2) the conditions indicated by the plans, specifications, and other contract documents; (3) the cost effect of the variance; and (4) that it gave proper notice of that variance.
DIFFERING SITE CONDITIONS CLAUSE (TYPE II CONDITION)	Unknown physical conditions below the surface of the ground of an unusual nature, differing materially from those ordinarily encountered and generally recognized as inherent in work of the character provided for in the contract.
DIRECT COSTS FAR 31.105	The cost of materials, supplies, equipment, labor, and any other cost identified specifically with the work being priced.
DISCHARGE OF A CONTRACT	The obligations incurred by the parties when they entered into the agreement are excused, and the parties are no longer bound to perform as promised.
DISCLOSURE STATEMENT FAR 30.202-1(a)	A statement designed to meet Cost Accounting Standard requirements on which contractors describe their contract cost accounting practices by providing data that are responsive to the requirements.

GLOSSARY

DISCOVERY	A legal procedure by which a party is interrogated and/or their documents are scrutinized in order to aid in the formulation or defense of a claim. It refers to pre-trial rights to gather information from other sources.
DISCUSSION FAR 15.601	Any oral or written communication between the Government and an offeror, (other than communications conducted for the purpose of minor clarification) whether or not initiated by the Government, that (a) involves information essential for determining the acceptability of a proposal, or (b) provides the offeror an opportunity to revise or modify its proposal.
DISPUTE FAR 52.233-1	A dispute is more than a disagreement between contracting parties. To launch the disputes process and to put an end to a discussion concerning the disagreement, a final decision by the Contracting Officer is required.
DISPUTES PROCEDURE FAR 33.202	The administrative procedure within a Government procuring agency, generally prescribed by the Contract Disputes Act, for processing a dispute arising under the contract; it involves a decision on the dispute by the Contracting Officer which, if unsatisfactory, the contractor may appeal to a Board of Contract Appeals or to the United States Claims Court.
DISRUPTION	An action or event that hinders a party from proceeding with a project.
DOCTRINE OF SUPERIOR KNOWLEDGE	A doctrine which holds that the Government must disclose vital information in its possession and not otherwise available to the contractor at the time of bidding. The Government's failure to disclose superior knowledge constitutes a breach of contract.
DODGE REPORT	A commercial daily publication issued by the F. W. Dodge Corporation of Atlanta, Georgia, which serves the construction industry by advertising information about all construction projects, both Government and commercial. It lists the projects by project types, and published in accordance with geographic regions. Information about Government construction projects is initially obtained from public records at the time of Congressional approval. Their staff follows the requirement through the A/E process, the bidding stage, and the construction phase, by printing updates on the project on a weekly and/or monthly basis. The Dodge Report regional office appears on most all construction bidder's lists. It serves as another source of marketing by advertising the procurement.
DOMESTIC CONSTRUCTION MATERIAL FAR 25.201	(a) An unmanufactured construction material mined or produced in the United States, or (b) a construction material manufactured in the United States, if the cost of its components mined, produced, or manufactured in the United States exceeds 50 percent of the cost of all its components.
DUMMY (RESTRAINT)	A term used in network diagramming which is shown on the diagram as a dashed-line arrow within a network, used for one of three purposes: (1) To keep job references unique when two or more jobs take place between the same two events; (2) To indicate a restriction or limitation imposed on the start of a job, (for example, by the availability of manpower, money, or equipment); or (3) To clarify the interdependencies between jobs.
DUTY TO SEEK CLARIFICATION	A rule that a contractor, before bidding, should attempt to have the Government resolve a patent ambiguity in a contract's terms. It is designed to avoid post-award disputes by encouraging contractors to seek clarification before being legally bound.
EARLIEST EXPECTED EVENT TIME	A flow diagram symbol which demonstrates the sum of elapsed time estimates representing the longest path forward in terms of time from the project start event to any particular event.

EC *(NAFTA COUNTRY)* CONSTRUCTION MATERIAL FAR 25.401	An article, material, or supply that (a) is wholly the growth, product, or manufacture of a European Community *(NAFTA)* country, or (b) in the case of a construction material which consists in whole or in part of materials from another country or instrumentality, has been substantially transformed in an EC *(NAFTA)* country into a new and different construction material distinct from the materials from which it was transformed.
EFFICIENCY LOSS	As related to overtime work, weather, crowding, re-scheduling, etc., the loss in productivity of construction labor and equipment required to perform a given task. May result from actions of the Government under a particular contract clause. It is usually expressed in terms of a percentage.
EICHLEAY	Method used for recovering unabsorbed overhead costs.
ELAPSED TIME	A flow diagram symbol used to identify the "best time" estimate. It is obtained from the most currently knowledgeable person, responsible for actual performance of the activity. Not obtained from "actual" historical data.
ELEMENTS OF A CONTRACT	Elements that must be present in a contract if the contract is to be binding. These include: • An offer. • Acceptance. • Consideration. • Execution by competent parties • Clear terms and conditions. • Legality of purpose.
EMERGING SMALL BUSINESS FAR 19.1002	A small business concern whose size is no greater than 50 percent of the numerical size standard applicable to the standard industrial classification code assigned to a contracting opportunity.
ENGINEER SERVICES FAR 36.102	Associated with research, development, design, construction, alteration, or repair of real property that are required by virtue of law to be performed by a registered or licensed architect or engineer.
ENGINEERING ESTIMATE	An engineering estimate is based on unit prices for significant work elements only, based on average conditions and performance.
ENVIRONMENTAL IMPACT STATEMENTS	Also Environmental Assessment. This is a statement which is sent to Congress on the affect of a project on a community, such as pollution, noise, etc. It can be accomplished in-house or by contract. It is accomplished on projects during the planning stage.
ENVIRONMENTAL PROTECTION AGENCY	Governmental agency that provides funding for many large construction projects and whose regulations govern the disposition of such funding.
EQUIPMENT COSTS, IDLE	The cost of equipment that remains on site ready for use, but is placed on a standby basis through no fault of the contractor.
EQUIPMENT COSTS, OWNED FAR 31.105(d)(2)	Expenses a contractor would be expected to incur in owning equipment used in its construction activities. This includes the costs of owning and maintaining the equipment during its useful life such as depreciation, replacement cost, escalation, interest on investment, taxes, insurance, and storage.
EQUIPMENT COSTS, RENTAL	The amount that the owner of equipment (lessor) charges a lessee for the use of this equipment. Often the rental includes the equipment operator.

EQUITABLE ADJUSTMENT	The difference between what it would have reasonably cost the contractor to perform the work as originally required and that which would reasonably cost the contractor to perform as changed. A corrective measure utilized to keep a contractor whole when the Government modifies a contract.
ESTOPPEL	An act of indicating acceptance of an offer, which forecloses a party from subsequently reversing a position.
EVALUATION FACTORS FAR 15.605	Factors, price related or technical, that will be considered in evaluating proposals. They should be tailored to each acquisition and include only those factors that will have an impact on the selection decision.
EVENT	A term used in network diagramming which describes a point in time between the end of one activity and the start of another. It represents the accomplishment of an activity or of a group of activities, but it does not itself have a time duration.
EXCESS REPROCUREMENT COSTS	Costs that the Government is entitled to charge a defaulted contractor to cover the difference between the price of the defaulted contract and the price the Government is required to pay to the reprocurement contractor for the defaulted quantity of supplies, services, or unfinished work.
EXCULPATORY CLAUSE	Contract clause that attempts to eliminate a party's liability in the event of specified occurrences.
EXCULPATORY OR DISCLAIMER CLAUSES	Contract language which warns the contractor of potential problems, or which otherwise seeks to impose the risks of these problems on the contractor.
EXCUSABLE DELAY FAR 52.249-8(c)	Delay in performing, or failure to perform a contract, arising from causes beyond the control and without the fault or negligence of the contractor.
EXECUTIVE ORDER (EO)	An order issued by the President that establishes policies to be followed by executive agencies.
EXPEDITED PROCEDURE FAR 52.233-1	Procedure under the Contract Disputes Act whereby an appellant before an agency Board of Contract Appeals can elect, for certain claims, to have a decision issued on a claim within four months after making the election.
EXPERIENCE PROVISION	An experience qualification is a specification provision that requires the firm performing a particular type of work to be of established reputation. The specification may or may not stipulate that a firm must have been in business for a stated number of years. It may also require that a specified number of years must have been experienced in successfully performing a specialty task.
EXPRESS AUTHORITY	Authority expressly conferred upon an agent to bind the principal.
FACILITIES CONTRACT FAR 45.301	Contract under which Government facilities are provided to a contractor or subcontractor by the Government for use in connection with performing one or more related contracts for supplies or services including construction.
FACILITIES SUPPORT COMBINATION SERVICE/ CONSTRUCTION	A contract for the procurement of both contractor services as well as construction effort. As a rule, the firm fixed price portion is for preventative maintenance and the indefinite quantity portion is for construction type work.

FACILITIES SUPPORT CONSTRUCTION	A contract for the procurement of construction, alteration, repair or improvements to real property.
FACTFINDING FAR 15.807(a)	The process of identifying and obtaining information necessary to complete the evaluation of proposals. If a prospective bidders makes inquiries relative to other than readily available general information, it may be necessary to obtain specific information by communication with technical or other personnel in order to determine the appropriate response.
FACTORY TESTING	Tests required on various products and component parts prior to shipment to the construction job site, including but not limited to such items as transformers, boilers, air conditioning equipment, electrical equipment, and precast concrete.
FAIR MARKET PRICE	A price based on reasonable costs under normal competitive conditions and not the lowest possible cost.
FCIA	Federal Courts Improvement Act of 1982, P.L. No. 97-164.
FEDERAL ACQUISITION REGULATION (FAR) FAR 1.101	Uniform policies and procedures for acquisition by executive agencies. The FAR is jointly prescribed, prepared, issued and maintained by the Department of Defense, the General Services Administration, and the National Aeronautics and Space Administration.
FEDERAL ACQUISITION REGULATORY COUNCIL	A council comprised of the Administrator for Federal Procurement Policy, the Secretary of Defense, the Administrator of National Aeronautics and Space Administration, and the Administrator of General Services. Under the Office of Federal Procurement Policy Act, this council assists in the direction and coordination of Government-wide procurement policy and procurement regulatory activities.
FEDERAL REGISTER	A daily Government publication that informs the public of proposed rules, final rules, and other legal notices issued by Federal agencies.
FEDERAL SPECIFICATIONS (FEDSPECS) FAR 10.001	Specifications and standards that have been implemented for use by all Federal agencies. GSA lists them in the Index of Federal Specifications, Standards, and Commercial Item Descriptions.
FEDERAL SUPPLY SCHEDULES FAR 8.104(a)	Indefinite delivery contracts established by the General Services Administration with commercial firms. The Schedules are a required source for commonly used supplies and services, and provide Federal activities with a simplified process for obtaining such supplies and services at prices associated with volume buying.
FEDERAL SUPPLY SERVICE	A functional division of the General Services Administration. The FSS is responsible, on a Government wide basis, for acquiring and maintaining stocks of certain supplies; for acquiring office furniture and fixtures, and certain power and hand tools; for purchasing or leasing motor vehicles; and for establishing and maintaining “schedule” contracts.
FEE OR PROFIT FAR 15.901(a)	Money paid to a contractor over and above total reimbursements for allowable costs.
FIELD CHANGES	A means of describing conditions which sometimes develop during construction necessitating minor changes or variations. Documentation is necessary, but variations are so minor that the issuance of a change order would not be justified.

FIELD CONSULTATION	An "on-call service", or a monthly or periodic service to serve as a consultant, providing expert assistance in problem solving during the construction phase, or to identify potential problems at the job site.
FIELD OFFICE OVERHEAD	Administrative expenses incurred at the job site, such as trailer rental; supervisory, secretarial, and night watchmen salaries, photocopying equipment, utilities, supplies, and other administrative costs required to operate the field office of a contractor.
FIELD PRICING SUPPORT FAR 15.805-5	Means a review and evaluation of the contractor's or subcontractor's proposal by any or all field pricing support personnel, typically through an audit.
FIELD TESTING	Tests or analysis made at or in the vicinity of the job site in connection with the actual construction, including but not limited to concrete and asphalt batch plants, precast concrete plants and similar establishments directly involved in the construction process.
FINAL DECISION, CONTRACTING OFFICER FAR 33.211	For purposes of the Contract Disputes Act, a contracting officer's unilateral adjudication of a contract claim that is a prerequisite to jurisdiction over the claim by a Board of Contract Appeals or Federal Court.
FIRM-FIXED-PRICE CONTRACT FAR 16.202-1	A contract that establishes a price not subject to any adjustment on the basis of the contractor’s cost experience in performing the contract.
FIXED PRICE CONTRACT FAR 16.201	A contract that establishes a firm price or, in appropriate cases, an adjustable price. Fixed-price contracts providing for an adjustable price may include a ceiling price, a target price (including target cost), or both. Unless otherwise specified in the contract, the ceiling price or target price is subject to adjustment only by operation of contract clauses providing for equitable adjustment or other revision of the contract price under stated circumstances. See also Firm Fixed Price contracts.
FLOAT OR SLACK	The spare time available in the performance of a job or activity on a network diagram. It equals the difference between the maximum time available for the job and the job duration. Only non-critical jobs have float or slack.
FLOW-DOWNS	Clauses from a prime contractor's Government contract that are "flowed down" (incorporated) into subcontracts.
FORWARD PASS	A method used to calculate the early start and early finish for each activity in a CPM schedule.
FORWARD PRICING	A change order is forward priced when the price adjustment is established prior to performance based on cost estimates. A forward priced change order is usually signed by both owner and contractor and usually contains a waiver and release provision purporting to bar any additional recovery by the contractor.
FRAGNET	A segment of new activities and/or network revisions that are proposed to be added to AN existing schedule to illustrate the method, graphically or mathematically, for incorporating delays and changed conditions.
FRAUD	A felonious act of corruption, or an attempt to cheat the Government or corrupt its agents.

GOVERNMENT PROPERTY FAR 45.101	All property owned by or leased to the Government or acquired by the Government under the terms of the contract. It includes both (1) Government-furnished property and (2) property acquired or otherwise provided by the contractor for performing a contract and to which the Government has title.
GROSS MISTAKE AMOUNTING TO FRAUD	The principal difference between fraud and gross mistake amounting to fraud is that gross mistake amounting to fraud does not require proof of intent to deceive. A substantial mistake induced by misrepresentation, without necessarily an intent to deceive.
GUIDE SPECIFICATIONS	Specifications which are used for the technical provisions of construction specifications, the intent of which is to promote uniformity of construction, provide requirements that have been coordinated with industry, and which may serve as convenient worksheets for designers (A/E).
HEAVY CONSTRUCTION	Davis-Bacon Wage Rate classification which includes those projects that are not properly classified as either "building", "residential", or "highway", and is of a catch-all nature (dredging, water and sewer line, dams, flood control, etc.)
HELPER FAR 22.401(b)(3)	Semi-skilled worker who works under the direction of & assists a journeyman.
HIGHWAY	Davis Bacon Wage Rate classification generally for the construction, alteration, or repair of roads, streets, highways, runways, taxiways, alleys, parking areas, and other similar projects that are not incidental to "building", "residential", or "heavy construction".
HOME OFFICE OVERHEAD	Expenses that include the indirect costs of contractor expenditures not attributable to a particular contract, such as executive and clerical salaries, rents and mortgages, duplication, postage, travel, automobiles, professional fees, utilities, office supplies, telephones, taxes, social security, dues, books and periodicals, insurance depreciation, hospitalization, and miscellaneous general and administrative expenses.
HOMETOWN PLAN FAR 52.222-27(c)	Goals for hiring minorities and females are established and agreed upon. Unions in various areas participate in agreeing to the plan by the specific trades involved. These Hometown Plan agreements are published for all geographic areas by the Office of Federal Contract Compliance Programs.
IMMATERIAL DEFECT FAR 14.405	A defect in a bid that is considered minor, or if the effect on price, quantity, quality, or delivery is negligible when contrasted with the total cost or scope of the services being acquired.
IMPACT COSTS	Those costs evolving from changes in the work over and above the direct costs of the changed work. The basis for recovery of an impact or ripple claim is that the effect of changes can and does create costs beyond those attributable to the changes themselves. Impact costs may be viewed in two ways (1) those arising out of each change viewed individually, or (2) those that result from the cumulative impact of changes.
IMPLIED AUTHORITY	Authority incidental to express authority necessary to the exercise of the authority actually granted.

GLOSSARY

IMPOSSIBILITY	The inability to meet contract requirements because the event is physically incapable of occurring. This is otherwise known as "actual" impossibility.
IMPRACTABILITY	Inability to perform because of extreme and unreasonable difficulty, expense, injury, or loss involved. This is sometimes called "practical impossibility".
IN-SCOPE MODIFICATION	Additional work or changes which fall under the general intent of the contract and within the physical limits of the construction site and which can be actively or inactively directed by the Contracting officer within the bounds of the contract authority.
INCREMENTAL FUNDING	The obligation of funds to a contract which contains a price or estimated cost in periodic installments as the work progresses, rather than in a lump sum at the outset. Often used as a means for Congress to fund very large and often complex construction projects that will be ongoing over a period of several years.
INDEFINITE DELIVERY CONTRACT FAR 16.501(a)	A type of contract used when the exact times and/or quantities of future deliveries are not known at the time of contract award. There are three variations of indefinite delivery contracts: 1) Definite-Quantity, 2) Requirements, and 3) Indefinite Quantity.
INDEPENDENT GOVERNMENT ESTIMATE FAR 36.203(a)	An independent Government estimate of construction costs based upon a detailed analysis of the construction methods; temporary construction facilities and material, labor and equipment requirements.
INDIRECT COSTS	Those costs that cannot be attributed to a single task or unit of construction work which are divided into two categories, job overhead and general overhead (home office).
INDIVIDUAL SURETY FAR 28.001	A method of pledging personal assets, in lieu of a regular bond, which may be in the form of cash, certificates of deposit, or other cash equivalents, United States Securities, stocks, bonds, real property, or irrevocable letters of credit.
INEFFICIENCY	Level of performance that is less than that achieved under normal working conditions.
INSPECTION	Examining and testing supplies or services (including, when appropriate, raw materials, components, and intermediate assemblies) to determine whether they conform to contract requirements.
INSPECTOR	An employee responsible for performing the actual field inspection work, and for recommending approval/rejection of material and workmanship, monitoring labor and safety provisions, maintaining inspection logs and records of defects, and all other similar activities associated with day to day contract administration tasks.
INSTALLED EQUIPMENT	Personal property of a capital nature, but which is permanently installed in or on a building or structure, is readily available to a contractor on the open market, and is normally installed by the contractor during the course of construction.

INTERESTED PARTY FAR 33.101	In dealing with protests an "interested party" means an actual or prospective bidder or offerer whose direct economic interest would be affected by the award of the contract or by failure to award the contract.
INTERFERENCE	Conduct that interrupts the normal flow of operations and impedes performance. Every contract contains the implied condition that neither party will do anything to interfere with the progress of the other party.
INTERIM COMPLETION DATE	Date established in the contract for the completion of specified portions of the work, such as a phased construction project. Also referred to as "intermediate completion dates."
INVOICE PAYMENT FAR 32.902	Government disbursement of monies to a contractor under a contract or other authorization for supplies or services accepted by the Government. It includes all payments made under the PAYMENTS UNDER FIXED-PRICE CONSTRUCTION CONTRACTS clause.
JOB ORDER CONTRACT	Competitively negotiated, Indefinite Quantity Contract which provides for pre-priced tasks in the form of unit prices based primarily on commercial specifications. The unit prices include material, labor and overhead. Orders are issued against the basic contract using the unit prices for the separate tasks.
JURY VERDICT METHOD	A method used by boards and courts, as well as arbitration panels to determine the amount due a contractor, based upon evidence presented as to estimated costs of a number of claim items.
LABOR HOUR CONTRACT FAR 16.602	A variation of the time-and-materials contract, differing only in that materials are not supplied by the contractor.
LABOR SURPLUS AREA FAR 20.101	A geographic area identified by the Department of Labor in accordance with 20 CFR 654, Subpart A, as an area of concentrated unemployment or underemployment or an area of labor surplus.
LABOR SURPLUS AREA CONCERN FAR 20.101	A concern that together with its first tier subcontractors will perform substantially in labor surplus areas.
LABORERS OR MECHANICS	Those workers, utilized by a construction contractor at any tier, whose duties are manual or physical in nature (including those workers who use tools or who are performing the work of a trade), as distinguished from administrative/managerial work.
LATENT CONDITION-DEFECT	A situation that cannot be observed by reasonable inspection. One which (a) is in existence at the time the Government accepts the work, but (b) cannot be discovered by reasonable inspection.
LATEST ALLOWABLE TIME EVENT	A flow diagram symbol illustrating the "smallest difference" remainder when the sum of the elapsed time estimates representing the longest path backward has been subtracted out from the earliest expected completion event time to any particular event.
LATEST EVENT TIME	A term which is used in network diagramming representing the latest time at which an event may occur without delaying succeeding activities. It is the same as the latest activity finish day of any activity entering it.

GLOSSARY

LETTER CONTRACT FAR 16.603-1	A written preliminary contractual instrument that authorizes the contractor to begin immediately manufacturing supplies or performing services.
LEVEL OF EFFORT	The devotion of talent or capability to a predetermined level of activity, over a stated period of time, on the basis of a fixed-price or cost reimbursement pricing arrangement. Payment is usually based on effort expended rather than on results achieved.
LINE OF BALANCE	A technique used as a progress monitoring tool which is suitable for construction on projects which involve a substantial number of subcontract crews and is considered repetitive in the use of general trade crews, such as housing, pipe-lines, tank farms, or high rise buildings. Its use enables potential problem areas to be identified early.
LIQUIDATED DAMAGES FAR 12.202	A stipulated sum that constitutes fair compensation for late completion or abandonment by a party. In order to be enforceable, two conditions must first be met (1) the fixed amount must be a reasonable forecast of the costs incurred due to late completion; and (2) the harm caused by such delay must be very difficult to estimate accurately.
LOAN GUARANTEES FAR 32.102(c)	Guarantees made by Federal Reserve banks, on behalf of designated guaranteeing agencies, to enable contractors to obtain financing from private sources under contracts for the acquisition of supplies or services for the national defense.
LOSS OF EFFICIENCY	Used by contractors filing a claim for alleged loss of efficiency in performance in a delay situation due to causes beyond the contractor's control.
LOSS OF LEARNING	Loss encountered by a contractor in a delay situation forcing the contractor to retrain personnel in the tasks required for performance.
LUMP SUM CONTRACTING	A method of contracting for construction in which the contractor agrees to carry out stipulated work in exchange for a fixed sum of money.
MAGNITUDE OF CONSTRUCTION FAR 36.204	An estimate of the magnitude of a construction project in terms of physical characteristics and estimated price ranges normally stated in general terms.
MAINTAINABILITY REVIEW	A review normally conducted by experienced public works or facility maintenance personnel for certain systems or collateral equipment to be purchased in conjunction with a construction project to ascertain cost and reliability of such items. The objective is to reduce future maintenance problems.
MAN-DAY	A unit of work performed by one person in one eight-hour or its equivalent.
MANHOUR ANALYSIS	A comparison of planned versus actual manning of the project used to determine work progress, productivity rates, etc.
MANUFACTURER'S CERT-IFICATE OF CONFORMANCE OR COMPLIANCE	A certificate signed by an authorized manufacturer's official attesting that the material or equipment delivered to the construction site meets the specification requirements.

MARKET RESEARCH FAR 10.001	Collecting and analyzing information about the entire market available to satisfy minimum agency needs to arrive at the most suitable approach to acquiring, distributing, and supporting supplies and services.
MATERIAL DIFFERENCE	As used in changed conditions situations such as the Differing Site Condition clause. The inexact science of determining that which is so substantial that it can provide the basis for recovery under a changed condition of a contract.
MAXIMUM ORDER LIMITATION (MOL) FAR 16.504(a)(3)	The maximum quantity which can be ordered against an indefinite quantity contract in a given period, usually one year.
MECHANIC'S LIEN	A mechanic's lien is a right created by law to secure priority of payment of the price or value of work performed and materials furnished in the improvement of land, and this right attaches to the land and the buildings erected thereon.
METHOD OF PERFORMANCE	The manner in which a specified task or objective is accomplished. Decisions concerning this matter are usually left to the discretion of the contractor unless otherwise specified in the contract.
METHOD OF PROCUREMENT	The process employed for soliciting offers, evaluating offers, and awarding a contract. In Federal contracting, Contracting officers use one of the following methods for any given acquisition: • Small Purchase • Sealed Bidding • Negotiation • Two-Step Sealed Bidding
MILITARY CONSTRUCTION	Acquisition, construction, installation, and equipment of temporary or permanent works, military installations, and facilities for the services for which authorizing legislation is required. Includes planning, minor construction and other supporting activities.
MILITARY SPECIFICATIONS FAR 10.001	Specifications and standards maintained by DoD and published in the DoD Index of Specifications and Standards. Commonly referred to as "MILSPECS."
MILLER ACT FAR 28.102-1(a)	A law that requires performance and payment bonds to be submitted for any construction project exceeding $25,000.
MINOR CONSTRUCTION (UNSPECIFIED MINOR CONSTRUCTION)	A project that is for a single undertaking at a military installation that has an approved cost equal to or less than the amount specified by law as the maximum amount allowed .
MITIGATION OF DAMAGES	A reasonable attempt by an injured party to keep the liability of a party who is responsible for the harm to a minimum.
MODIFIED TOTAL COST	Method of computing equitable adjustments which measures the difference between actual costs and a reasonable estimate of what the costs would have been.

MODIFIED TOTAL COST METHOD	A method used to determine the amount due a contractor in a claim which measures the difference between actual costs incurred, and a reasonable estimate of what costs would have been, absent the inefficiency and disruption.
MUTUAL MISTAKE	A legal doctrine under which a contractor, when it can show the existence of a factual condition, of which both it and the Government were unaware, and which goes to the "very essence" of the contract, may be successful in having the contract rescinded and in having its actual costs paid.
NATIONAL DEFENSE FAR 2.101	Any activity related to programs for military or atomic energy production or construction , military assistance to any foreign nation, stockpiling, or space.
NEGOTIATION FAR 15.102	(1) A bargaining process between two or more parties seeking to reach a mutually satisfactory agreement or settlement on a matter of common concern. (2) A method of procurement that includes the receipt of proposals from offerors, permits bargaining, and usually affords offerors an opportunity to revise their offers before award of a contract. Bargaining—in the sense of discussion, persuasion, alteration of initial assumptions and positions, and give-and-take—may apply to price, schedule, technical requirements, type of contract, or other terms of a proposed contract.
NETWORK ANALYSIS	A System used for construction management composed of a network diagram depicting sequence and interdependencies of activities, a mathematical analysis of the network diagram, and the management controls indicated.
NONPERSONAL SERVICES CONTRACT FAR 37.101	A contract under which the personnel rendering the services are not subject, either by the contract's terms or by the manner of its administration, to the supervision and control that usually prevails in relationships between the Government and its employees.
NORMAL WEATHER	The kind of weather that could be expected for a period of time based on the weather experience of the locale. It is usually calculated by averaging weather data over a ten year period.
NOTICE	A communication expressing a party's intentions. It may be written, as generally required by contract, or oral.
NOTICE TO PROCEED FAR 36.304(e)	Written communication issued by the Government to the contractor authorizing the contractor to proceed with the work and establishing the date the work should commence.
NOVATION AGREEMENT FAR 42.1202	When a contractor sells a business a Novation Agreement is the vehicle by which the Government recognizes the successor in interest.
OBLIGATION OF FUNDS	Legally binding commitments, such as contract awards, made by Federal agencies during a given period that will require outlays during the same or some future period.
OFFER FAR 2.101	A legally binding promise, made by one party to another, to enter into a contractual agreement, if the offer is accepted. In sealed bidding, offers made in response to Invitations To Bids (IFBs) are called "bids." In negotiated acquisitions, offers made in response to a Request for Proposals (RFP) are called "proposals."

OFFICE OF FEDERAL PROCUREMENT POLICY	An organization within the Office of Management and Budget (OMB) that provides leadership and direction to Federal procurement programs.
OFFICE OF MANAGEMENT AND BUDGET	An office that recommends and monitors Federal programs and funding levels, develops and issues Government wide policy guidance on management concerns, and reviews proposed regulations.
OPERABILITY	The ease with which a project can be operated and maintained.
OPTION FAR 17.201	A unilateral right in a contract by which, for a specified time, the Government may elect to purchase additional supplies or services called for by the contract, or may elect to extend the term of the contract.
OR EQUAL	A contract provision specifying that an item deemed by the A/E to be essentially equivalent to an item required by the contract specifications will be acceptable under the contract.
OUT-OF-SCOPE MODIFICATION	Additional work which extends outside the proper limits of the site, or of a different nature than that covered by the contract, or work greatly increasing the value of the project.
OUTLAYS	Payments (e.g., checks issued, cash disbursed, and electronic fund transfers) by a Federal department or agency.
OVERRUN	A situation where the actual quantity of work performed by a contractor exceeds the amount specified or estimated in the bid schedule of the contract.
PDL	Price to be Determined Later. An Acronym used in reference to an undefinitized change order.
PACKAGING	Consolidation of projects into a single contract when the facilities are to be located in a geographically common area and are functionally related.
PAROL EVIDENCE RULE	Where two parties have reduced their agreement to a written contract, all prior negotiations and understandings, whether written or oral, are merged or integrated into the written agreement and thus cannot be used to vary, contradict, or add to the terms of the contract.
PARTIAL PAYMENTS FAR 32.102(d)	Payments for items received and accepted by the Government when the contractor has shipped part of the order. Partial payments are generally treated as a method of payment and not as a method of contract financing.
PASE MASTERSPEC	Private Sector Guide Specification, American Institute of Architects (AIA).
PAYMENT BOND FAR 28.001	A bond that assures payments as required by law to all persons supplying labor or material in the prosecution of the work provided for in the contract.
PE REGISTERED	A professional engineer registered to practice in a particular professional field involved in a State or possession of the United States, in Puerto Rico, or in the District of Columbia.

PENALTY	When used in relationship with the Liquidated Damages clause, means a sum that bears no apparent relationship to the injury, but that is chosen by the party with the greater bargaining position to coerce performance by the other party.
PERFORMANCE BOND FAR 28.001	A bond that secures performance and fulfillment of the contractor's obligations under the contract.
PERFORMANCE SPECIFICATION	A purchase description that describes the deliverable in terms of desired operational characteristics. Performance specifications tend to be more restrictive than functional specifications, in terms of limiting alternatives which the Government will consider and defining separate performance standards for each such alternative.
PERSONAL SERVICES CONTRACT FAR 37.101	A contract that, by its express terms or as administered, makes the contractor personnel appear, in effect, as Government employees.
PERT	Program Evaluation Review Technique. A method of network analysis which is similar to the CPM method, addressing statistical variance involved with critical path activities and "near critical" activities.
PLANS AND SPECS	The description of desired performance, drawings, standards, purchase descriptions, specifications and other technical conditions of a construction solicitation.
PRE-CONSTRUCTION CONFERENCE FAR 36.305	A meeting between Government representatives and a construction contractor which is scheduled as soon as possible after award of a contract and prior to commencement of work to discuss significant elements of administering the contract (including the labor standards clauses) in sufficient detail to permit all parties to fully understand what is expected of them.
PREAWARD INQUIRY FAR 14.211	Questions and comments from prospective offerors about specifications, terms, and conditions in a solicitation received prior to the opening date of the IFB or closing date of the RFP.
PREBID/PROPOSAL CONFERENCE FAR 14.207	A meeting held with prospective offerors before bid opening or before the closing date for submission of proposals. Generally, the purpose of such meetings is to brief the offerors and explain complicated specifications and requirements.
PRECEDENCE METHOD OF NETWORKING	Precedence diagraming is a means of drawing and calculating activity times in network diagraming. It is similar to the arrow method of diagraming, except for the absence of dummies. The arrow method is event oriented, whereas the precedence method is activity oriented.
PRECEDENT	Prior rulings in similar cases, used as authority for ruling in a case at the bar.
PREVAILING WAGES	Basic hourly rates of pay established for in the area in which the work is to be performed. The rates are derived by mathematical computations of the rates paid to the majority of those employed in a given construction job classification for similar undertakings.

PRICE FAR 15.801	(1) A monetary amount given, received, or asked for in exchange for supplies or services. (2) Cost plus any fee or profit applicable to the contract type. Price analysis includes comparing the various bid prices; comparing current bid prices with prices previously paid; and other price analysis techniques.
PRICE ANALYSIS FAR 15.801	The process of examining and evaluating a proposed price without evaluating its separate cost elements and proposed profit.
PRICE NEGOTIATION POSITION	Used to describe the Government's target negotiation position established prior to negotiations in reference to a Price Negotiation Memorandum or Business Clearance.
PRICE-RELATED FACTOR FAR 14.201-8	When evaluating offers for award, any factor applied in identifying that offer which would represent the lowest total cost to the Government. Examples include costs of inspection, transportation, and the cost of making multiple awards. Any price-related factors must have been stated in the solicitation.
PRICING, RETROSPECTIVE	An adjustment which is priced after the work has been completed. Actual costs for the changed work are used to determine the amount of the change.
PRIMARY RIPPLE (IMPACT) COST	An increase or decrease in the contractor's cost of performance of any part of the work which was changed by a change order, or as a result of a differing site condition.
PRIVITY OF CONTRACT	Requirement that a party seeking to enforce contractual rights against another party must have a direct contractual relationship with that party.
PROCUREMENT ACTION LEAD TIME (PALT)	The time between (1) acceptance of a PR by the Contracting officer and (2) award of the contract.
PROCUREMENT PLAN FAR 7.105(b)	Upon acceptance of the Purchase Request, the plan of action developed by a contract specialist for soliciting offers, evaluating offers, and awarding a contract.
PRODUCT	The term "product" includes the plural thereof and means a type or a category of manufactured goods in construction, installation and natural and processed materials or those associated services whose characterization, classification, or functional performance determination is specified by standards.
PRODUCT CERTIFICATIONS	A construction specification may provide for the approval of certain construction materials such as paint, asphalt, roof materials, etc., using what is called a product certification, whereby the manufacturer certifies that it meets certain standards of quality.
PROFIT or FEE FAR 15.901(a)	Money paid to a contractor over and above total reimbursements for allowable costs.
PROGRESS PAYMENTS FAR 32.102-1(b)	Payments made under a fixed price contract on the basis either of (1) costs incurred by the contractor as work progresses under the contract or (2) on physical progress in accomplishing the work.

GLOSSARY

PROGRESS SCHEDULE	A schedule which shows how the work will be performed and the sequencing of the tasks.
PROJECT DESCRIPTION STUDIES	A term used within GSA in referring to a study which is conducted on proposed projects. The studies are accomplished either in-house or by term contracts.
PROJECT ENGINEER/ PROJECT ARCHITECT	The person responsible for performance of pre-design, design, procurement and construction phase services, possessing greater expertise, ability, and experience than the inspector.
PROJECT MANAGER, CONSTRUCTION	Responsible for plans, schedules, funding, and controls the field work and is also responsible for getting the project completed on time and within cost limitations.
PROJECT MANAGER/ TEAM LEADER	The principal CQM employee in a construction management contract associated with an individual workorder responsible to the Contract Executive for successful completion of all work required by a given work order.
PROJECT PLANNING REVIEW BOARD	In GSA the board reviews and recommends to Congress line item projects for funding. (Projects $1.5 million or more)
PROJECT SCHEDULE	Projected timetable of construction operations that will serve as a principal guideline for project execution.
PROJECT SCOPE	The boundaries of the ultimate product to be delivered, such as planning and design of the building, as well as the construction of the project. That which has been approved by Congress.
PROJECT SUPERINTENDENT (CONSTRUCTION)	A person responsible for supervising and directing trades, coordinating the subcontractors, and working with the Government in keeping the daily work moving smoothly and efficiently.
PROJECT WAGE RATE DETERMINATION FAR 22.404-1(b)	A special determination issued at the specific request of a contracting agency for use when no general wage rate determination applies, and is effective for 180 days from the date of the determination, for the specific contract only.
PROPER INVOICE FAR 32.902	Under the Prompt Payment Act, a proper invoice must reflect the specific goods or services provided and the precise amount owed. It must also include the contract number and must be sent to the Government office authorized to issue payment.
PROPOSAL FAR 15.402(d)	An offer by a contractor that can be accepted by the Government to create a binding contract. It is made in response to a request by the Government to accomplish work described in a solicitation or other document for an offered price within a given period of time.
PROSPECTUS	(Line Items) Construction projects over 1.5 million which are listed in the Blue Book. (GSA)
PROTEST FAR 33.101	A written objection by an interested party to a solicitation, proposed award, or award of a contract. Interested parties include actual or prospective offerors whose direct economic interests would be affected by the award of a contract or by the failure to award a contract.

PUBLIC BUILDING or WORK FAR 22.401	Means building or work, the construction, prosecution, completion, or repair of which is carried on directly by authority of, or with funds of, a Federal agency to serve the interest of the general public regardless of whether title thereof is in a Federal agency.
PUBLIC BUILDINGS SERVICE (PBS)	A functional division of the General Services Administration. PBS has broad responsibilities for acquiring, through purchase or lease, buildings and other real estate for Federal departments and agencies, and for the maintenance of public buildings.
PUNCH LIST	A list of items (usually minor) to be completed or corrected by the contractor which has been compiled after the initial inspection of the substantially completed work.
PURCHASE DESCRIPTION FAR 10.001	Describe the essential physical characteristics or functions required to meet the Government's minimum need.
PURCHASE ORDER FAR 13.101	An offer by the Government to buy certain supplies or nonpersonal services and construction from commercial sources, upon specified terms and conditions, the aggregate amount of which does not exceed the small purchase limit.
PURCHASE REQUEST (PR)	A requisition prepared by a requiring activity which (1) describes the supplies or services to be acquired, (2) certifies the availability of funds for the acquisition, and (3) includes other information, clearances, and approvals necessary for the CO to initiate the acquisition.
PURE DELAY	A term used in describing a delay which caused a complete suspension of work, such as in construction suspension situations.
QUALIFIED BIDDERS LIST FAR 9.201	A list of bidders who have been pre-qualified to bid on a project by having their qualifications examined and approved prior to bidding on the solicitation.
QUALITY	The extent to which the contract's deliverable satisfies the actual minimum needs of the end users.
QUALITY ASSURANCE FAR 46.101	The procedures by which the Government fulfills its responsibility to be certain the CQC is functioning and the specified end product is realized.
QUALITY CONTROL SUPERINTENDENT	A CQM employee designated as the :"key" "on-site" representative of the CQM responsible for ensuring delivery of the day-to-day quality management services provided by a CQM under a contract which is expected to exceed $10 million. The individual closely manages work during all phases of the project.
QUALITY LEVEL	The specific degree of excellence, basic nature, character, or kind of performance of a particular item or group of items as indicated and specified in a CQC requirement.
QUID PRO QUO	"That for this." Descriptive of the requirement of consideration in contracts.

GLOSSARY

REASONABLE COST FAR 31.201-3	A cost is reasonable if, in its nature and amount, it does not exceed that which would be incurred by a prudent person in the conduct of competitive business.
REASONABLE VALUE CONCEPT	A rule applied in remuneration to the contractor which maintains that the amount should be equated with the reasonable value of the work . Restated in another way, the contractor is compensated on the basis of what the change should cost, rather than what it actually cost.
REDICHECK	A structured review system of interdisciplinary coordination which provides an orderly specific approach to checking construction drawings and specifications during the design stage, eliminating coordination problems between the disciplines.
REMEDY	That which the complaining party seeks to enforce or recover as a means of resolving a dispute. Remedies are usually connected with debarment, suspension and ineligibility, contract pricing, changes and modifications, warranties and inspection, debt deductions, offsets and damages, voluntary refunds, renegotiation, mandatory injunctions and unsupported claims.
REPUDIATION	Renunciation; a declaration that a party's obligations previously contracted for are no longer regarded by it as a binding force.
REQUEST FOR PROPOSALS (RFP)	The solicitation in negotiated acquisitions
REQUEST FOR QUOTATIONS (RFQ) FAR 13.108(a)	A document used in soliciting quotations. RFQs are used when the Government does not intend to award a contract on the basis of the solicitation but wishes to obtain price, delivery, or other market information as the basis for preparing a purchase order or for planning purposes. A quotation received in response to an RFQ is not an offer and cannot be accepted by the Government to create a binding contract.
RESCISSION OF CONTRACT	Annulling or abrogating a previously made agreement. The "unmaking" of a contract.
RESIDENTIAL CONSTRUCTION	Davis Bacon wage rate classification for construction, alteration, or repair of single family houses or apartment buildings of no more than four stories high, and typically includes, incidental items such as site preparation, parking areas, utilities, streets and sidewalks.

RESPONSIBLE OFFEROR

FAR 9.104-1

An offeror that meets the General and any Special Standards established under FAR 9.104. To be determined responsible under the General Standards, a prospective contractor must—

- Have adequate financial resources to perform the contract, or the ability to obtain them;
- Be able to comply with the required or proposed delivery or performance schedule, taking into consideration all existing commercial and governmental business commitments;
- Have a satisfactory performance record;
- Have a satisfactory record of integrity and business ethics
- Have the necessary organization, experience, accounting and operational controls, and technical skills, or the ability to obtain them (including, as appropriate, such elements as production control procedures, property control systems, and quality assurance measures applicable to materials to be produced or services to be performed by the prospective contractor and subcontractors);
- Have the necessary production, construction, and technical equipment and facilities, or the ability to obtain them; and
- Be otherwise qualified and eligible to receive an award under applicable laws and regulations.

RESPONSIVE

FAR 14.301(a)

A bid that complies in all material respects with the IFB.

RIPPLE EFFECT

A change in one activity of the contractors' work which may then affect other follow-on activities.

RISK

The probability of not attaining the goals for which the party entered into a contract. For the contractor (seller), the principal business or financial risk is an unexpected loss of money on the contract. For the Government, the principal risks are that:

- The total cost of the acquisition will be higher than expected or unreasonable in relation to the actual costs of performance.
- The contractor will fail to deliver or will not deliver on time.
- The final deliverable will not satisfy the Government’s actual need, whether or not “acceptable” under the terms and conditions of the contract.
- The Government’s need will change prior to receipt of the deliverable.

RULE 4 FILE (OR RULE 6 FILE)

A legal file containing the contracting officer's final decision, the contract, pertinent correspondence, affidavits, and related information which is pursuant to Rule 4 or Rule 6 of the Uniform Rules of Procedure for the Boards of Contract Appeals.

SABER

Simplified Acquisition Base Engineering Requirements An Air Force Acronym describing the J O C contracting method of procurement.

SANCTIONED EC CONSTRUCTION

FAR 25.1001

Construction to be performed in a sanctioned member state of the European Community (EC) and the contract is awarded by a contracting activity located in the Unites States or its territories.

SCHEDULE OF PRICES	A document which must be submitted by the contractor subsequent to award of a construction contract which is used by the Government to estimate progress payments. It consists of a breakdown of the total contract price showing the amounts broken into principal categories of work.
SCOPE, GENERAL	What should be regarded as having been fairly and reasonably within the contemplation of the parties when the contract was entered into.
SEALED BIDDING FAR 14.101	A method of procurement prescribed in Part 14 of the FAR that employs competitive bids, public opening of bids, and awards. Under this method: • The CO issues an Invitation for Bids (IFB). • Offerors submit sealed bids. • The bids are publicly opened. • Award is made to the responsible bidder whose bid, conforming to the IFB, will be the most advantageous to the Government, considering only price and the price-related factors included in the invitation.
SECONDARY RIPPLE (IMPACT) COST	An increase or decrease in the contractor's cost of the performance of any part of work which was not changed by the change order or as a result of a different site condition, when the increase or decrease in the cost of the unchanged work was caused by the change order or as a result of the differing site condition.
SEISMIC STUDIES, ASBESTOS ABATEMENT, ENERGY	Studies which must be accomplished prior to some construction projects. Must be accomplished during the planning stage of the project. Special funds are appropriated for these types of studies known as the Energy Fund.
SERVICE CONTRACT FAR 37.101	A contract that directly engages the time and effort of a contractor whose primary purpose is to perform an identifiable task rather than to furnish an end item of supply.
SET-ASIDE FAR 19.501(a)	An acquisition reserved exclusively for offerors who fit into a specified category. Set-asides are commonly established for small businesses and businesses in labor surplus areas.
SHOP DRAWINGS FAR 36.102	Means drawings submitted by the contractor or subcontractor, at any tier, under a construction contract. Includes drawings, diagrams, layouts, schematics, descriptive literature, illustrations, schedules, letters of certification, performance and test data, and similar materials required by the specifications and furnished by the contractor to explain in detail specific portions of the work.
SHORT LISTING	The process of evaluating a list of A/E firms who have indicated their interest in designing a given project, resulting in a list of firms, by ranking, who will then be interviewed before a selection is made.
SHOW CAUSE NOTICE FAR 49.607	A written delinquency notice, sent to the contractor immediately upon expiration of the delivery period, advising that the Government is considering termination for default; affords the contractor the opportunity to show cause why termination for default should not occur.
SITE ACCESS	In a construction contract, the Government has an implied obligation to provide the contractor with adequate access to the job site in order to enable the contractor to fulfill its obligations.

SITE OF CONSTRUCTION FAR 22.801	The general physical location of any building, highway, or other change or improvement to real property that is undergoing construction, rehabilitation, alteration, conversion, extension, demolition, or repair.
SITE OF THE WORK FAR 22.401	Limited to the physical place or places where the construction called for in the contract will remain when work on it is completed and nearby property used by the contractor during construction that can reasonably included in the site.
SIX PERCENT LIMITATION FAR 15.903(d)(1)(ii)	Applies to the statutory law limiting the A/E fees to 6% of the STATUTORY FEE estimated construction cost for design, drawings and specifications.
SMALL BUSINESS CONCERN FAR 19.001	A concern (including its affiliates) which is (1) independently owned and operated, (2) not dominate in the field of operation in which it is bidding on Government contracts, and (3) qualifies as a small business under the criteria and size standards in 13 CFR Part 121.
SMALL PURCHASE FAR 13.101	The acquisition of supplies, nonpersonal services, and construction in the amount of $25,000 or less through simplified procedures (e.g., imprest funds, purchase orders, and blanket purchase agreements).
STANDARD METROPOLITAN STATISTICAL AREA (SMSA)	A statistical term applying to Hometown Plans applicable to construction contracts meaning the plan is based on a metropolitan area as apposed to a rural area. When adopting the Hometown Plan concept in compliance with Equal Opportunity provisions in hiring minorities and females it was recognized that there was a geographical difference in meeting the needs of persons employed in a metropolitan area as opposed to a rural area. Therefore they adopted two statistical measurements, SMSA and EAs (meaning rural).
SOCIOECONOMIC OBJECTIVE	Any objective for an acquisition established by statute or by an Executive Order which is in addition to the innate goals (i.e., quality, cost, timeliness, risk, competition, and integrity) of the acquisition process.
SOLE SOURCE ACQUISITION FAR 6.003	A contract for the purchase of supplies or services that is entered into or proposed to be entered into by an agency after soliciting and negotiating with only one source.
SOLICITATION	A document requesting or inviting offerors to submit bids or offers. Solicitations basically consist of (a) a draft contract and (b) provisions on preparing and submitting offers.
SOLICITATION PROVISION FAR 52.101(a)	A term or condition used only in solicitations and applying only before contract award. Provisions provide information to prospective offerors on such matters as: • Preparing and submitting offers. • The evaluation of offers and the offeror's right to protest award. Provisions are not included in the resulting contract.
SOURCE SELECTION FAR 15.612	The process of soliciting and evaluating offers for award. Formal source selections usually involve the: • Establishment of a group (e.g., a Source Selection Board) to evaluate proposals. • Naming of a Source Selection Authority, who might be the CO, the requiring activity manager, or a higher level agency official, depending on the size and importance of the acquisition. • Preparation of a written source selection plan.

SPEARIN DOCTRINE	As a preparer of the documents by the Government, by offering them for bid purposes warrants their adequacy for the use intended by implication. It has been adapted from the leading case for the implied warranty of specifications, U. S. v. Spearin, 248 U. S. 132 (1918).
SPECIFICATION FAR 10.001	A description of the technical requirements for a material, product, or service that includes the criteria for determining whether the requirements are met.
SPECIFICATION, DIVISION 1,	General requirements of the specification.
SPECIFICATION, DIVISION	One of sixteen broad groupings of the requirements of a construction contract.
SPECINTACT	Guide Specification, NASA.
SPECTEXT	Private Sector Guide Specification, Construction Sciences Research Foundation.
STACKING OR CONGESTION OF TRADES	A situation which may occur when delays in the individual elements or systems of a construction project results in workmen of several trades becoming stacked in limited work areas creating a situation in which work cannot be done efficiently.
STANDARD FAR 10.001	A document that establishes engineering and technical limitations and applications of items, materials, processes, methods, designs, and engineering practices; includes any related criteria deemed essential to achieve the highest practical degree of uniformity in materials or products, or the interchangeability of parts used in those products.
STANDARD FORM 254	A form providing a general resume' of an A/E firm's experience and expertise.
STANDARD FORM 255 FAR 36.306(b)	A form providing information of an A/E's qualifications for design of a specific project.
STARE DECISIS	Legal term meaning "Let the decision stand". The principle that prior decisions of court should stand as precedent for future guidance.
STATEMENT OF WORK (SOW)	The complete description of work to be performed under the contract, encompassing all specifications and standards established or referenced in the contract. The SOW constitutes Part C of the Uniform Contract Format.
STATUTE	A law enacted by the legislative branch of Government and signed by the President; identified by a public law number.
STATUTORY COST LIMITATION FAR 36.205	A term used in reference to the statutory law in which Congress establishes a monetary limit on some types of construction projects which shall not be exceeded.
STOP WORK ORDER FAR 52.212-12	A written order to the contractor from the CO requiring the contractor to stop all, or any part, of the work called for by the contract for a period of 90 days after the order is delivered to the Contractor, and for any further period to which the parties may agree.

SUBCONTRACT FAR 44.101	Any contract entered into by a subcontractor to furnish supplies or services for performance of a prime contract or a subcontract. It includes but is not limited to purchase orders, and changes and modifications to purchase orders.
SUBCONTRACTING PLAN FAR 19.704	Construction contracts exceeding $1,000,000 must include separate % goals for using small (and small disadvantaged) business concerns as subcontractors. The contractor must make a good faith effort to comply with this plan.
SUBCONTRACTOR FAR 44.101	Any supplier, distributor, vendor, or firm that furnishes supplies or services to or for a prime contractor or another subcontractor.
SUBMITTALS	Data to be furnished by the construction contractor prior to commencing work such as samples, shop drawings, manufacturer's data, certified test results, manufacturers certificates of compliance, operation and maintenance data, etc.
SUBROGATION	"Act under", or "stand in the shoes of". The substitution of one party in the place of another with reference to a lawful claim, demand, or right, so that the substituted party succeeds to the rights of the other in relation to a claim or debt, and its rights, remedies, or securities.
SUBSTANTIAL PERFORMANCE	Doctrine which prohibits termination of a contract for default if a contractor's performance deviates only in minor respects from the contract's requirements.
SUBSTANTIALLY COMPLETED FACILITY	A building or facility is deemed "substantially" complete if it can be used or occupied for its intended purpose despite the fact that some items remain uncompleted.
SUMMARY JUDGEMENT	A judgment, without trial, which is entered where there is no genuine issue concerning a material fact and the moving party is entitled to prevail as a matter of law.
SUPERCEDEAS DECISION	Reissuance by the Department of Labor of an entire wage rate determination with changes incorporated.
SUPPLEMENTAL AGREEMENT FAR 43.101	Any contract modification which is accomplished by the mutual action of the parties.
SUPPLIES FAR 2.101	All property except land or interest in land, including (but not limited to) public works, buildings, and facilities; ships, floating equipment, and vessels together with parts and accessories; aircraft and aircraft parts, accessories, and equipment; machine tools; and the alteration or installation of any of the foregoing.
SURETY FAR 28.001	A person or company which agrees to accept specified monetary liability in the event of default by the contractor.
SURETY TAKE OVER FAR 49.404(b)	Procedure applying primarily to construction contracts terminated for default, providing that the surety be allowed to complete the contract work based on a proposal which is agreed to by the Contracting officer.

GLOSSARY

SYNOPSIS FAR 5.201 and 5.301	(1) A brief description of the supplies and services to be acquired by contract. It also provides prospective offerors with information on obtaining a copy of the IFB or RFP from the responsible contracting office. Synopses are published in the Commerce Business Daily (CBD). (2) A notice of award published in the Commerce Business Daily (CBD).
TECHNICAL ANALYSIS	Within GSA it is generally required that a TA be performed by the Project Manager when there is a 10% difference in the price from the Government estimate and the contractor's proposal.
TASK ORDER	An order issued under an existing contract or other type of contract such as the Job Order Contract (JOC) or Term Contract. The basis for issuing orders, and the terms and conditions are set forth in an existing contract.
TECHNICAL EQUIPMENT	Specialized equipment which, although it may be built-in, installed, or portable, is NOT readily available on the open market.
TECHNICAL FACTORS FAR 15.605(b)	Factors other than price-related used in evaluating offers for award. Examples include technical excellence, management capability, personnel qualifications, prior experience, past performance, and schedule compliance.
TECHNICAL LEVELING AND TRANSFUSION FAR 15.610(d)	A prohibited negotiation tactic. Technical leveling means helping an offeror to bring its proposal up to the level of other proposals through successive rounds of discussion, such as by pointing out weaknesses resulting from the offeror's lack of diligence, competence, or inventiveness in preparing the proposal. Technical transfusion means disclosing technical information supplied by one offeror (or otherwise pertaining to that offer) to other, competing offerors.
TERM CONTRACT	A term used within GSA in reference to a type of indefinite quantity contract for A/E services or Construction Management services.
TERMINATION FOR CONVENIENCE	Generally, the exercise of the Government's contractual right to completely or partially terminate a contract for the convenience of the Government.
TERMINATION FOR DEFAULT FAR 49.401(a)	Generally, the exercise of the Government's contractual right to completely or partially terminate a contract because of the contractor's actual or anticipated failure to perform its contractual obligations.
TERMINATED PORTION OF THE CONTRACT FAR 49.001	The portion of a terminated contract that relates to work or end items not completed or accepted before the effective date of termination that the contractor is not to continue to perform. For construction contracts that have been completely terminated for convenience, it means the entire contract, notwithstanding the completion of, and payment for, individual items of work before termination.
TERMS AND CONDITIONS	All language in a solicitation and contract, including amendments, attachments, and referenced clauses and provisions.
TESTING ENGINEER/ TECHNICIAN	A CQM contractor employee who is held responsible for performance of testing work specified in the contract.
TESTING LABORATORY	Means any persons whose functions include testing, analyzing, or inspecting "products" or evaluating the designs or specifications of such "products" according to the requirements of applicable standards.

TIME AND MATERIALS CONTRACT FAR 16.601(a)	Type of contract that provides for acquiring supplies or services on the basis of (1) direct labor hours at specified fixed hourly rates that include wages, over-head, general and administrative expenses, and profit and (2) materials at cost, including, if appropriate, material handling costs as part of material costs.
TIME EXTENSION	A lengthening of the contract period prompted by negotiations between the parties or the occurrence of events triggering a time extension under the terms of the contract.
TIMELINESS	Delivery of requisitioned supplies to the end user in the quantity and at the time necessary for the end user's purposes, or performance of services at the time necessary for the end user's purposes.
TITLE II SERVICES	Construction inspection services provided by an A/E.
TOTAL COST APPROACH	As applied when making equitable adjustments where actual or historical costs are submitted for the Government's consideration. The determination of the adjustment is the difference between the original contract price (unchanged) and the actual cost of performing the contract as changed.
TOTAL COST METHOD	A method of determining equitable adjustments measuring damages by computing total costs subtracting the original estimated construction costs figured at the bidding stage. The difference represents the contractor's overrun.
TOTAL SLACK	Flow diagram term for maximum time available for accomplishing the work.
TRAINEE FAR 22.401(b)(2)	Person registered and receiving on-the-job-training in a construction occupation under a program which has been approved in advance by the U.S. Department of Labor, Employment and Training Administration.
TRUTH IN NEGOTIATIONS	Term used to refer to Public Law 87-653 whose purpose is to require contractors to submit accurate, complete, and current costs or pricing data.
TURNKEY CONTRACT	A contract in which the contractor has complete responsibility from design to completion of construction ready for use.
TWO-PART CHANGE ORDER	In cases where a change involves a substantial sum and considerable time will be required to determine the equitable adjustment or the exact extent of the change, and it is determined that it would be inequitable to require a contractor to finance the change until the equitable adjustment or the extent of the change is finally determined, then the change order may be issued in two parts. The first part may provide an amount for payment purposes only, and will expressly stipulate that such amount is tentative and that the final adjustment will be made under the second part of the change order.
TWO-STEP SEALED BIDDING FAR 14.501	A method of procurement; the two steps are 1. The CO issues a request for technical proposals. Technical proposals received are evaluated, and, if necessary, discussed. 2. Sealed bids are solicited from only those sources that submitted acceptable technical proposals under step one. Award is made as in sealed bidding.

UNIFORM COMMERCIAL CODE (UCC)	Subcontracts under construction contracts are generally treated as contracts between private parties subject to state law even where the prime or general contractor is performing under a Federal or other public contract. The Uniform Commercial Code is a series of regulations adopted by the states based upon contract law principles pertaining to suppliers and materialmen selling goods to a construction contractor.
UNABSORBED OVERHEAD	Generally defined as those allowable overhead costs which have been accumulated by a contractor and which must be recovered by means of allocating to the specific contract to which they are associated.
UNALLOWABLE COST FAR 31.001	Any cost which, under the provisions of any pertinent law, regulation, or contract, cannot be included in prices, cost-reimbursements, or settlements under a Government contract to which it is allocable.
UNBALANCED BIDDING FAR 15.814(b)	A practice whereby the bidder bids high on some items and low on others enabling a contractor to "buy into a contract" by manipulation of unit prices in order to generate "windfall profits".
UNCHANGED WORK	Contract requirements not altered by a modification to the contract.
UNDEFINITIZED MODIFICATION	Any contract action for which the contract terms , specifications, or price are not agreed upon before performance is begun under the action.
UNDERRUN	A situation where the actual quantity of work performed by a contractor is less than the estimated amount shown in the bid schedule of the contract.
UNIFORM CONTRACT FORMAT FAR 14.201-1(a)	A format for preparing solicitations and contracts. Solicitations and contracts for construction are exempt from its prescribed use.
UNILATERAL MODIFICATION FAR 43.103(b)	A modification signed only by the contracting officer. They are used to make administrative changes and issue change orders and termination notices.
UNITED STATES CLAIMS COURT	Federal Court which, upon dissolution of the United States Court of Claims in 1982, assumed the role of the Court of Claims' trial division.
UNREASONABLE DELAY	Generally a suspension or delay which lasts so long (regardless of the absence of Government's fault) that the contractor cannot reasonably be expected to bear the risk and cost of disruption and delay is unreasonable.
UNSOLICITED PROPOSAL FAR 15.501	A written proposal that is submitted to an agency on the initiative of the submitter for the purpose of obtaining a contract with the Government and which is not in response to a formal or informal request.
UNSPECIFIED MINOR CONSTRUCTION	A minor military construction project that is for a single undertaking at a military installation, and that has an approved cost equal to or less than the amount specified by law as the maximum amount for a minor military construction project. (DOD)
USACESPEC	Corps of Engineers Guide Spec for Military Construction
USER ORIGINATED CHANGE	Those changes of an elective or enhancement nature, as opposed to an operability nature, that are originated by the using organization or installation.

VALUE ENGINEERING FAR 48.001	The procurement technique developed to encourage submission of cost reducing change proposals by promising the contractor a share of the savings.
WARRANTED CONTRACTING OFFICER'S REPRESENTATIVE	Person with limited specific contracting authority such as for work orders and change orders on A/E contracts not to exceed $25,000, or authority for change orders on construction contracts which do not exceed $100,000.
WAIVER	The intentional or voluntary relinquishment of a known right.
WALSH HEALEY ACT FAR 22.602	Federal law establishing labor standards covering such things as work hours, the payment of overtime, and worker health and safety, which applies to contractors having a Government contract in excess of $10,000 to manufacture or furnish materials, supplies, articles, or equipment in conjunction with a construction project.
WARRANTY OF CONSTRUCTION FAR 52.246-21	A warranty contained in construction contracts that requires that the contractor, subcontractors, manufacturers, and suppliers warrant that all work under the contract conforms to the contract specifications and contains no defect in workmanship, materials, or design for a period of one year after final acceptance.
WARRANTY, EXPRESS	Written or oral statements of fact or promises made by one of the parties to a contract which relate to the subject of the contract.
WARRANTY, IMPLIED	A promise not explicitly written in the contract which is nevertheless recognized by the courts based on the actions of the parties to the agreement.
WEATHER, UNUSUALLY SEVERE	Climatic conditions in a particular location that are harsher than those normally found in that location at that particular time of year. Normally determined by comparing current conditions with those noted in weather records for the previous five or ten years.
WORK ELEMENT	A term used in network diagramming describing an item, unit, or portion of work which comprises the whole or completed structure; e.g., constructing footings, ground slabs, walls, and roof are work elements of a building. Erecting forms, installing reinforcing steel, and placing concrete are more detailed work elements of a building ground slab.

APPENDIX D

ALPHABETICAL LISTING OF SPECIFIC FAR REFERENCES TO CONSTRUCTION

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* There are numerous references to these Subparts in the Construction Text/Reference

NOTE: Excludes Part 13 on Small Purchases; and Part 30 on Cost Accounting Standards

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