

CHAPTER 8

CONSTRUCTION MANAGEMENT

8-1. Types of Services.

a. The primary functions of the district Construction Division are quality assurance, contract administration, funds control, and construction project management. The Chief, Construction Division supervises the district construction activities. This individual advises contracting officers on construction management matters and is directly responsible to the district commander for management of assigned construction programs (including the quality, cost and timeliness of the facilities constructed) and for the performance and operation of designated facilities until they are formally accepted by the user.

b. The area or resident engineer is charged with administering construction contracts and is in daily contact with the contractor. This individual is formally appointed by the contracting officer as the administrative contracting officer (ACO) with specific authorities and monetary limitations for each contract administered by that office.

c. The construction manager, located in the construction division at the district office, provides the interface between the district engineering division, the construction division, the life cycle project manager, and the area/resident engineer and the district office.

d. Working together, the above mentioned team members have the primary responsibility of accomplishing the following activities in support of an installation's construction requirement:

(1) Quality Assurance. This function involves enforcement of the technical provisions and quality control provisions of the contract. The Corps Quality Assurance/Quality Control system is described in ER 1180-1-6.

(2) Quality Assurance for Hazardous and Toxic Waste Program. This type of quality assurance differs technically from the provisions found in a design and construction contract. Presently, some districts obtain the assistance of Omaha District (a USACE Center of Expertise for HTW projects) to provide these services.

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(3) Supervision and Administration During Construction. Supervision and administration are provided by the area/resident engineer and district construction project manager in accordance with the relationship described above.

(4) Warranties. ER 415-345-38, Construction Transfer and Warranties, prescribes procedures for the transfer of completed construction to the installation and for the implementation of warranties. It also requires the district to correct design defects discovered by the installation engineer after transfer by the most expedient means. Design defects discovered in this manner, or as a result of periodic joint warranty inspections performed at four months and nine months after transfer, are recorded and entered in the Construction Evaluation Reporting System (CERS).

(5) Construction Contractor Performance Evaluation. The Corps utilizes a systematic approach to evaluating, recording and reporting construction contractor performance. The objective of this process is to avoid doing business with nonresponsible contractors. The system is known as the Construction Contractor Appraisal Support System (CCASS). Both interim and final performance evaluations are entered into the system and the resultant information is used to screen bidders on current and future construction solicitations.

(6) Architect-Engineer Title II Services. An A-E contract may be structured to contain an option for "Title II" services. These services provide for assistance by the A-E to the government during construction and may include visits to the construction site for inspection of the work or other assistance, review of shop drawings, and other contract submittals, source inspection and test witnessing at a supplier's plant, or engineering and design during construction. The construction manager will usually be the design project manager's point of contact for the exercise of the contract option, funding, monitoring of A-E performance, and payment. Very early coordination is required during contract development to include the Title II option and ensure that the services needed by the construction supervisor will be provided.

(7) Architect-Engineer Responsibilities. The degree of reliance on the A-E to check their designs and assure a quality job has necessarily increased in recent years. The A-E is paid to do a job and profit is provided with due consideration for risk.

Therefore, a professional and impartial review by district engineering division personnel and the design project manager is accomplished to determine the quality of the A-E's work, the existence of any design deficiencies, and if there is any A-E liability involved. (NOTE: ER 715-1-10 establishes a systematic and formalized approach to investigating and pursuing A-E liability. This process improves future designs by causing better A-E quality assurance procedures implementation during the design process.)

(8) Change Orders. During construction, the need for a change to the project may occur. There are two principal types of change order requests. The first is called "operability" changes, which are unavoidable changes that are required to construct a complete and operable facility. Such changes originate from unforeseen factors discovered during the design and/or construction of the project. The other type of change order request is called "user originated," which is an elective or enhancement nature change, as opposed to an operability necessity, that are originated at the installation or Major Command. Changes relating to incorporation of Major Command, installation, or using organization criteria, mission changes, or facility use requirements are considered as user originated changes.

(9) Figure 8-1 depicts some of the detailed tasks involved in the life cycle of the construction contract management process.

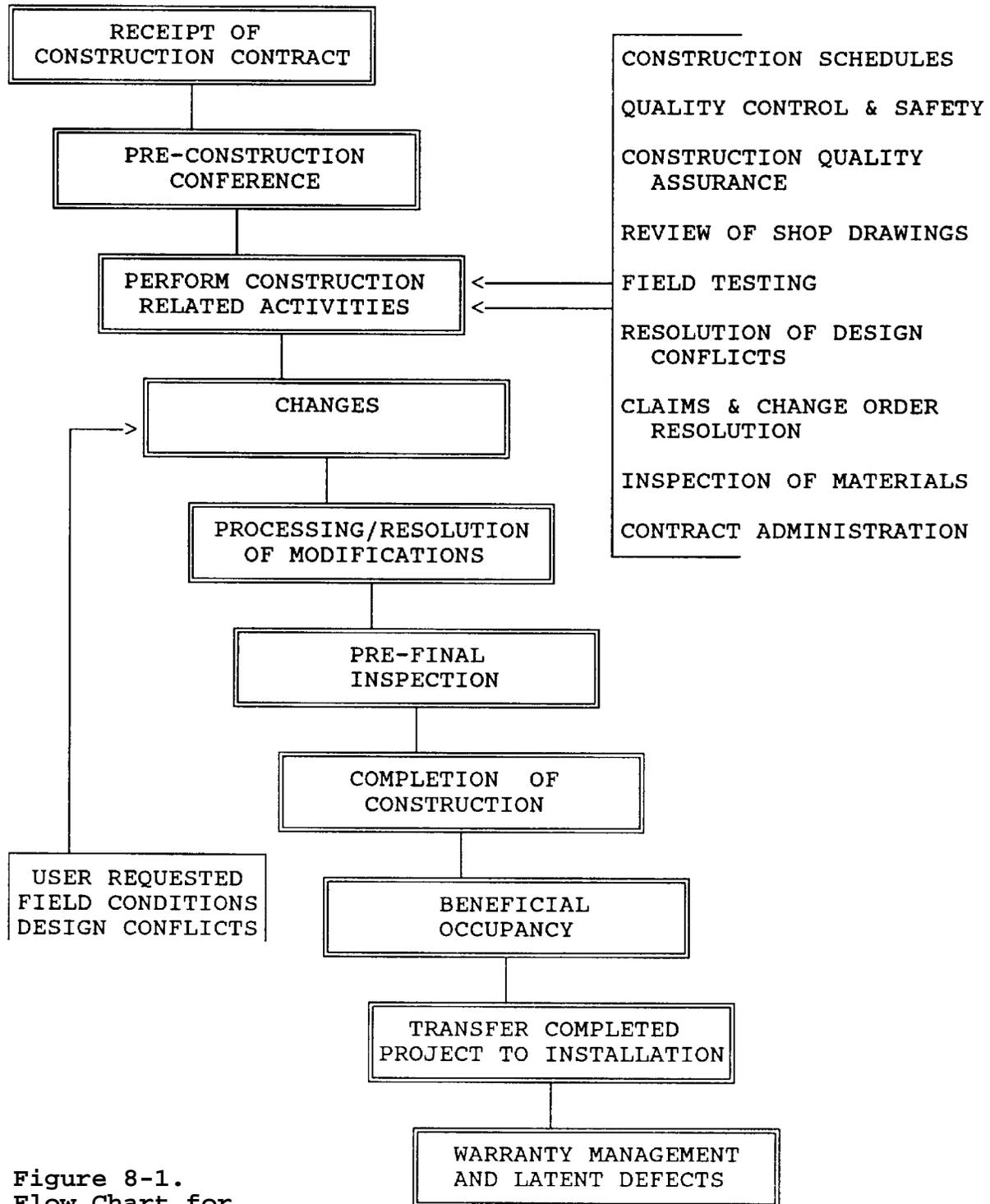


Figure 8-1.
Flow Chart for
Construction Management

8-2. Regulatory and Statutory Guidelines.

a. Federal Acquisition Regulations (FAR) 6.303-2, 14.208, 14.209, 15.804, 15.805, 15.808, 16.403-2, 16.2, 16.202, 16.603, 16.702, 16.703, 31.105, 31.2, 36.605, 43.101, 43.103, 52.214, 52.236-23, 52.243, 53.246, 53.301-308, 5.3.

b. DoD Federal Acquisition Regulation Supplements (DFARS) 15.902, 16.101, 36.601, 36.602, 36.604, 36.605, 36.606.

c. Army Federal Acquisition Regulation Supplement (AFARS) 1.691-3.

d. Engineer Federal Acquisition Regulation Supplement (EFARS) 15.808, 36.605/90, 36.606/95, part 43.

e. AR 415-20, Military Construction Program Management.

f. ER 715-1-10, A-E Responsibility Management Program.

8-3. Who Provides These Services.

For construction management support services, the district Installation Support Coordinator will forward the installation request either to the Construction Division or to the local area or resident engineer's office. In all cases, the Installation Support Coordinator will receive, coordinate and monitor the installation request.

8-4. How To Obtain These Services.

Use an Installation Support Request Form, or call or write to the district Installation Support coordinator to initiate a request for service, or contact the local area or resident engineer office. The installation should be prepared to supply the following:

a. An Installation Support Request Form prepared in general accordance with the sample format (Figure 8-3) at the last page of this chapter. This form gives a narrative summary of work or services required.

b. Copies of installation records needed to provide the service.

c. Applicable documents, correspondence, or regulations.

d. Document transmitting funds to the district office.

8-5. Typical Funding and Time to Accomplish the Service.

a. Corps of Engineers districts are unique as an organizational element of the Federal Government in that they do not generally receive operating funds from the Federal budget. Instead, Corps districts and operating divisions are primarily funded on a project-by-project reimbursable basis. All operating costs must be supported through "revenues" provided by its customers for services rendered. Thus, district and operating divisions operate on a cost distribution concept. Under this concept, general and/or administrative expenses associated with day-to-day operations must be equitably distributed to all direct funded and reimbursable projects.

b. Cost of construction management with the type of the construction contract (O&M or MILCON). For a MILCON construction contract, costs run at 6% of the value of the construction placed. For operations and maintenance/reimbursable funded work consisting of minor construction and maintenance and repair work which require many of the same administrative procedures as larger scale projects, costs run higher. Current rates for O&M funded work are 8% for CONUS projects and 8.5% for OCONUS. While construction management funds for MILCON are appropriated by Congress along with funds for the actual construction, funding of S&A for reimbursable funded projects is provided by the installation, major command, or nonappropriated funding source.

c. Supervision and administration (S&A) charges are levied by the districts and operating divisions on all projects executed by the Corps. The S&A charge is passed on to the installation customer in the form of a flat percentage rate and covers the costs of construction management during the construction phase of a project. Construction management costs include efforts of the construction and engineering divisions, area, resident or field offices, legal, resource management, and their associated overhead.

d. District efforts are funded by S&A money once the design has been completed and the construction contractor has been selected. All S&A monies collected during a fiscal year must reflect charges on construction work placed during that fiscal year; S&A funds for work not placed are returned to the installation and any remaining S&A fee will be charged to the installation during the following fiscal year. Figure 8-2 provides funding guidelines which may help simplify this process. With proper planning, installations and districts and eliminate excessive year-end transfers of large sums of S&A and other funds required for construction contract management.

e. Other fees that may be levied for construction projects include contract fees for providing contracting division services, fees for (constructability) design reviews by construction division, contingency amounts to meet unforeseen contract requirements, and a charge for preparation of as-built drawings.

f. When to ask for this service and normal duration. Lead times needed to initiate construction management depend upon the complexity of the construction contract itself. A general rule is to allow three months between the time the installation requests support and the time the district becomes an active participant in the management of the contract.

CONSTRUCTION FUNDING REQUIREMENT FOR REIMBURSABLE FUNDED CONSTRUCTION CONTRACT * * * * * BASED UPON FY QUARTER WHEN AWARD OCCURS	FIRST QUARTER				NOTES (1) (5) (2) (6) (2) (6) (3) (6) (3) (6) (4) (6) (4) (6)
	SECOND QUARTER				
	THIRD QUARTER				
	FOURTH QUARTER				
	CONSTRUCTION COST (CFY)	100%	100%	100%	
8.0% S&A FUNDS (CFY)	100%	100%	50%		
8.0% S&A FUNDS (FFY)			50%	100%	
CONTINGENCY FUNDS (CFY)	100%	100%	50%		
CONTINGENCY FUNDS (FFY)			50%	100%	
0.5% EDC FUNDS (CFY)	100%	100%	50%		
0.5% EDC FUNDS (FFY)			50%	100%	

CFY = CURRENT FISCAL YEAR FFY = FOLLOWING FISCAL YEAR

NOTES: 1. CONSTRUCTION COST BASED UPON FINAL DESIGN GOVERNMENT COST ESTIMATE.
 2. RATE VARIES FOR OCONUS PROJECTS.
 3. 5% MINIMUM FUNDED AT CONSTRUCTION CONTRACT AWARD, WITH ADDITIONAL CONTINGENCY FUNDED ON A CASE-BY-CASE BASIS.
 4. ENGINEERING DURING CONSTRUCTION (EDC) IS REQUIRED AT CONSTRUCTION AWARD BY ER 37-345-10, EXCEPT FOR FOURTH QUARTER AWARDS.
 5. OR PROVIDE IN THE FOLLOWING YEAR FOR SAF PROJECTS.
 6. PERCENTAGES FOR CURRENT AND FOLLOWING YEAR FUNDS MAY BE ADJUSTED BASED UPON CONSTRUCTION PLACEMENT EXPECTED IN EACH YEAR.

Figure 8-2. Construction Cost Funding Guidelines.

8-6. Examples of Construction Management Services.

a. Examples of the construction management services available from a USACE district are typically ongoing at any installation on reimbursable and MILCON work and other types of construction support activities.

b. A sample of how to obtain construction management support services appears on the following sample Installation Support Request Format (Figure 8-3):

INSTALLATION SUPPORT REQUEST		
INSTALLATION: Fort Dakota	PROJECT NUMBER: JVL-1234	
PROJECT TITLE: Renovation of Post Headquarters Building		
TYPE OF WORK: <input type="checkbox"/> PLANNING <input type="checkbox"/> ENVIRONMENTAL <input type="checkbox"/> STUDY <input type="checkbox"/> DESIGN <input checked="" type="checkbox"/> CONSTR MGMT <input type="checkbox"/> REAL ESTATE <input type="checkbox"/> A-E CONTRACT SELECTION <input type="checkbox"/> OTHER		
CURRENT WORKING ESTIMATE: \$ 790,000.00		
BASIS OF ESTIMATE: Final Design DATE PREPARED: 21 Apr 91		
DESCRIPTION OF WORK/SERVICE REQUIRED: PLEASE BE SPECIFIC ! Request advertisement, award and construction contract admin services (Supervision & Inspection) be provided for the above project. This project was planned for award in FY92 however, Command influence resulted in funding this FY. The number of projects currently advertised through our DOC precludes our ability to administer this project. 100% design complete plans & specs as prepared by our EPSD are attached.		
SPECIAL CRITERIA/DESIGN REQUIREMENTS: This project must be awarded for construction <u>THIS FY !</u> Design funds are available for your biddability and constructability reviews. Constr Performance period: 150 days.		
PROJECT AUTHORIZATION: <input type="checkbox"/> DD 1391 <input checked="" type="checkbox"/> DA 4283 <input type="checkbox"/> OTHER		
CONSTRUCTION AGENT: <input checked="" type="checkbox"/> DISTRICT <input type="checkbox"/> INSTALLATION		
CRITICAL NEED DATES: SERVICE COMPLETE: DESIGN START: COMPLETE: _____ CONSTRUCTION CONTRACT AWARD: <u>NLT 27 SEP 91</u> CONSTRUCTION START: <u>1 NOV 91</u> COMPLETE: <u>15 MAR 92</u>		
AVAILABILITY OF AS-BUILT DRAWINGS: Final design attached		
AMOUNT OF START-UP DESIGN FUNDS ATTACHED: \$4,500.00		
INSTALLATION PROJECT MANAGER: <u>James V. Ovol</u>		
TELEPHONE: (COM'L) <u>(979) 987-3456</u> (AV) <u>007-3456</u>		
FACSIMILE: <u>(979) 987-6543</u> OFFICE SYMBOL: <u>DKTA-DEH-E</u>		
INSTALLATION ENGINEER OR AUTHORIZED REPRESENTATIVE		
SIGNATURE	TITLE	DATE
COL M. T. Rushmore	DEH	15 Jun 91

Figure 8-3. SAMPLE FORMAT-INSTALLATION SUPPORT REQUEST INVOLVING CONSTRUCTION MANAGEMENT SUPPORT