

# CONSTRUCTION MANAGEMENT PROCESS

## I. INTRODUCTION

The construction phase of Community Development Block Grant (CDBG) projects consists of many activities, beginning with final design of construction plans and specifications and ending with completion of the one-year construction warranty period. Because construction management directly or indirectly involves almost every CDBG participant, each step will be described in detail to allow all parties to understand how each interrelated task affects their responsibilities.

This chapter divides the construction phase into three major sub phases:

- Preconstruction
- Construction
- Post Construction

Discussion of each sub phase will concentrate on major tasks specific to each of the parties listed below:

- Grantee (referred to as the owner in contract documents)
- Prime contractors
- Architect/Engineer
- Project administrator
- Subcontractors
- Funding agencies, particularly the Arkansas Economic Development Commission

## II. PRECONSTRUCTION ACTIVITIES

### A. Final Approval of Plans and Specifications

In accordance with state law (A.C.A. § 22-9-101) all building projects in excess of \$100,000 must be designed by a state-licensed architect and all infrastructure projects in excess of \$25,000 must be designed by a state-licensed engineer. Projects not meeting this threshold requirement must still have a contract document package prepared in sufficient detail to allow prospective bidders to prepare bids. Please contact the grants division grants manager to determine sufficiency of documentation for these projects. Because a majority of design considerations (e.g., trench safety, earthquake design, etc.) are defined in the professional services contracts for engineers and architects and in the contract documents attached to this chapter, the emphasis on this section will be on the plans and specifications approval process that must be completed prior to advertisement for construction bids.

Before the grants division can approve plans and specifications, the following activities must occur:

1. A letter from the grantee stating acquisition is 100 percent complete and Order of Entry, if there are condemnations, must be received by the grants division.
2. The final plans and specifications must conform to all requirements specified in this chapter and are consistent with the scope of work defined in the grant agreement and professional service agreement. A Sample Bid Package for ACEDP funded projects is provided as a separate document.
3. Final construction cost estimates, including deductive alternatives, must be provided. Estimates for line item bids must include estimated quantities, unit costs and total costs.
4. All other applicable state agencies must have reviewed and approved the plans and specifications. Below is general guidance regarding review agency responsibilities:

| <b>Project Type</b> | <b>Review Agency</b>  |
|---------------------|---|
| Water               | Arkansas Department of Health   |
| Wastewater          | Arkansas Department of Health, Arkansas Department of Environmental Quality |
| Buildings           | Arkansas Department of Health   |
| Flood and Drainage  | Arkansas Natural Resources Commission                                       |
| All Projects        | All agencies funding the project  |

Grantees are required to include as part of the contract documents the wage determination applicable to the project. The process for requesting wage determinations is explained in the Labor Standards Chapter of this manual. Grantees are required to contact the Arkansas Economic Development Commission 10 days prior to the bid opening date to verify that the issued wage determination is still valid.

Engineers, architects, and contractors are required to submit certification to the grants division that new building construction is in compliance with the Arkansas Energy Code. The Certificate of Compliance for the 2004 Arkansas Energy Code is an Attachment 1-U located in the Sample Bid Package.

Questions regarding approval of final plans and specifications should be referenced to the grants division grants manager.

**B. Interpretation of Plans and Specifications**

**All questions** regarding interpretation of the plans, specifications, drawings and other contract documents should be addressed only to the design architect or engineer. Questions specific to the content of the Sample Bid Package for ACEDP funded projects should also be addressed to the engineer or architect who may request further interpretation from the grants division grants manager. Any inquiry or other action requiring written interpretation or instruction from the architect or engineer that will modify the plans and specifications and affect

bidders (e.g., modified wage determination, redesigns, etc.) must be done so by addendum.

An addendum is written instruction issued prior to the opening of construction bids that modifies or interprets contract documents, drawings and specifications by additions, deletions, clarifications or corrections. All addenda must be approved by the Arkansas Economic Development Commission prior to issuance. Addenda must be issued by certified mail at least five days prior to the date of bid opening. Failure to attain approval may result in disallowance of affected costs.

Written or verbal instruction not in the form of an addendum from the architect or engineer in response to a question is acceptable only if such question does not require an interpretation of the meaning of the contract documents.

Occasionally, the scope of construction activities is so complex that a prebid conference may be requested by the owner or engineer or architect to explain the project or answer bidders' questions. These conferences are not required by the grants division and shall be conducted in accordance with the professional service agreements between the grantee and engineer or architect.

### **C. Bidding and Contract Award Process**

Advertisements for construction contract bids may not be published until plans and specifications for such contract have been unconditionally approved by applicable agencies.

All advertisements for construction bids must be consistent with state law (A.C.A. § 22-9-203) and the Arkansas Economic Development Commission policy which requires publication of advertisement for bids in a newspaper of statewide circulation one time each week for not less than two consecutive weeks. (See the Sample Bid Package for ACEDP funded projects, Attachment 1A, Advertisement for Bids.) The date of publication of the last notice shall not be less than seven days before the date established for the receipt of bids. Grantees are required to notify the commission's Small and Minority Business Division of such advertisement. (See the Procurement Chapter of the ACEDP Administrative Procedures Manual for specific details.)

In addition to statewide newspaper advertisement, grantees may directly solicit prospective bidders and advertise in local newspapers or construction industry trade journals.

Receipt of all sealed bids should be documented by date and time of receipt and the name of the submitting contractor on the Bid Receipt Form (Form 62). Use of this form is optional. Bids received after the established deadline shall not be accepted.

All bids shall be opened and read aloud by the grantee at the time, date and location specified in the bid advertisement. The grantee shall identify/verify the name and address of the contractor; inclusion of a bid bond; inclusion of any other required bid information (e.g., identification of subcontractors); receipt of all addenda (if any); and the base bid amount minus deductive alternatives which must be listed in numerical order.

All of this information must be recorded on the Bid Tabulation Sheet (Form 63) or on a form of equal substance supplied by the engineer or architect.

If the lowest base bid exceeds the amount of funds appropriated for contract award, then the application of deductive alternatives in numerical order will commence until the bid is within the appropriated amount.

If the bid amount after applying all deductive alternatives exceeds the appropriated amount of the contract by less than 25 percent, then the contract amount can be negotiated with the apparent low bidder until the amount is within the appropriated amount. If, after the application of deductive alternatives, the amount exceeds the appropriation more than 25 percent, then the project must be rebid after revising the plans and specifications. If the contract(s) is within the appropriated amount defined above, then the apparent low bidder(s) can be identified.

Once the apparent low bidder is identified, the grantee must determine if he is responsible. At a minimum, the following items must be confirmed:

- Is the contractor licensed in Arkansas?
- Based upon past experience, is the prime contractor competent to perform the required work? Specific questions might include
  - Has the contractor had any bonds called in the last five years?
  - What is his record of completing projects on time?
  - What is his history of payment to subcontractors and suppliers?
  - Does he/has he maintained a permanent place of business?
  - Are his equipment and resources adequate to do this project?
  - What is his technical experience in this type of work?
- Is the prime contractor debarred or suspended from federally funded contracts and thus ineligible to be awarded the contract? To determine this, submit a Verification of Contractor Eligibility Form (Form 64) to the grants division grants manager. **All prime contractors are responsible for ensuring that the subcontractors they employ are not debarred or suspended.**
- Other criteria may be established by the grantee as necessary.

In accordance with the General Service Administration's (GSA) Office of Government wide Policy, Cities, Counties, Contractors and Professional Service providers MUST be registered with the System for Award Management (SAM) **prior to obtaining a contract** and/or

agreement with a project receiving Federal and/or State funding. The System for Award Management (*previously known as CCR-Central Contractor Registration*) is a database that is used to collect, validate, store and disseminate data in support of Federal and State agency contracts and assistance awards.

SAM registrants must provide basic information relevant to procurement and financial transactions in order to complete their registration. Registrants must update or renew their registration at least once a year to maintain an active status. An active status must be maintained for the life of the contract and/or agreement.

In order to register with SAM, you must have a Data Universal Numbering System (DUNS) number. There is **NO CHARGE** for obtaining a DUNS number or for registering in SAM. A DUNS number can be obtained at [www.dnb.com](http://www.dnb.com) or call 800-424-2495. SAM has a **FREE** online registration process that can be accessed at [www.sam.gov](http://www.sam.gov).

Verification of the City's, County's, Contractor's and/or Professional Services Provider's active SAM registration must be obtained prior to execution of all agreements and contracts. If you have questions or need additional information, please go to the SAM website or call the Federal Service Desk at 866-606-8220. You may also contact your Grant Administrator for additional assistance.

**NOTE: Verification that you are registered and active in SAM.gov MUST be presented at the Pre-Construction Conference or the Notice to Proceed will not be issued.**

If a bidder is determined to be non-responsible, the grantee must document reasons for such decision in writing and proceed to evaluate the next apparent lowest bidder(s) until an acceptable bidder is determined. Once the apparent lowest responsive, responsible bidder(s) for each contract(s) is determined, the grantee can notify all bidders whether or not they were successful. Successful bidders must be notified of acceptance of their bid within the time frame specified in the contract documents. Such notification shall be made through issuance of a Notice of Award (Form 65) which requests the contractor to provide acceptable payment and performance bond(s) and certificates of insurance within 10 calendar days.

Upon reception of these documents, the grantee must determine if

1. The contractor has sufficient bonding and insurance. The insured amounts must be consistent with requirements of state law as specified in the contract documents, e.g., 100 percent payment and 100 percent performance bond(s) coverage and sufficient liability coverage amounts. Note: Licensing and underwriting limitations of insurance companies in the state of Arkansas can be checked by referencing U.S. Department of the Treasury, Circular 570 Companies Holding Certificates of Authority as Acceptable Sureties on Federal Bonds and as Acceptable Reinsuring Companies as updated in the Federal

Register.

2. All legal requirements of the executed contract documents have been satisfied. Grantee approval of contract documents shall be documented by an executed Certificate of Owner's Attorney.

Contracts must be awarded within the time frame specified in the contract documents. If the contract has not been awarded within 90 days of bid opening, the grantee must notify the grants division to determine if the wage determination is still valid. Any applicable modified or superseded wage determinations will apply to the project.

After all contract documents have been executed and sufficient bonding and insurance is confirmed, a fully executed set of contract documents must be submitted to the grants division.

Occasionally, bid protests may arise regarding identification of the lowest responsible, responsive bidder. Should a bid protest arise, contact the grants division grants manager.

#### **D. Preconstruction Conference**

The engineer or architect shall coordinate scheduling the preconstruction conference with all applicable parties. At a minimum, 10 days notice shall be given to the Economic Development Commission and the following persons who must attend the preconstruction conference:

1. Grantee (mayor or county judge)
2. Project administrator
3. Prime Contractors (especially the superintendent and the individual preparing the payrolls)
4. The engineer and architect (especially the person representing the firm and the resident observer)
5. Representatives of the Arkansas Economic Development Commission and all other funding agencies
6. Subcontractors (if known at this time)

A preconstruction conference **should not** be held without the city or county representative present. The preconstruction conference shall be conducted in accordance with the Preconstruction Conference Agenda and Report (Form 66). Signed copies of the report, with an attached attendance list, must be distributed to each of the parties identified above within five calendar days of the conference.

### **III. CONSTRUCTION ACTIVITIES**

#### **A. Construction Commencement**

During or directly after the preconstruction conference, the engineer/architect will issue a Notice to Proceed (Form 67) to the contractor informing him that construction can commence. The contractor must sign the Notice to Proceed and commence construction no later than 10 days after receipt of this Notice. The date of construction commencement shall be no later than 10 days after the Notice to Proceed was signed by the owner.

**B. Resident Observation**

Full-time resident observation must be provided by the engineer or architect for all water and wastewater projects to ensure that the directives of the contract documents are being met by contractors and subcontractors. The duties and authorities of resident observation, including daily (Form 68) and weekly (Form 69) reporting requirements, are discussed in detail in the Preconstruction Conference Agenda and Report.

**C. Change Orders**

A written change order (Form 70) is required any time that contract documents are changed, including additions, deletions, modifications, and time-extensions after bid opening. All change orders must be reviewed and approved by the Arkansas Economic Development Commission prior to issuance. The requirements for change orders and the approval process are discussed in detail in the Preconstruction Conference Agenda and Report.

**D. Shop Drawings**

Shop drawings generally are written drawings, diagrams, illustrations, brochures, schedules and other data prepared by contractors, subcontractors, manufacturers, suppliers, etc. that explain how specific portions of the work should be fabricated or installed. These submittals should be reviewed by the resident observer but must be reviewed by the engineer or architect and made available to the owner. Submittal and review requirements are discussed in the Preconstruction Conference Agenda and Report.

**E. Final Inspection**

Upon substantial completion of the project, the contractor must inform the engineer or architect that a final inspection is requested. The engineer or architect will schedule a final inspection to be attended by the owner, engineer/architect, project administrator, contractor(s) and the grants division. Notice of this inspection must be received by the grants division at least 10 days prior to the scheduled date.

The final inspection shall consist of a short prefatory meeting then a field inspection to confirm that the project has been completed. The following documents must be available at the final inspection:

1. Punch List(s) (Form 71)
2. Certificate(s) of Substantial Completion (Form 72)
3. Final Contractor Estimate(s) (numbered and marked final)
4. Release of Lien Form for each contractor (Form 73)
5. Reconciliation Change Order(s)

General items of discussion at the final inspection include

1. Acceptance of work by all parties
2. Transfer of insurance coverage to the owner
3. Utility considerations
4. Reception of as-builts or record drawings (within 45 days of execution of the Certificate of Substantial Completion)
5. Establishment of warranty period
6. Final payment

Although a few punch list items may be pending at the time of the final inspection, all major problems should be resolved and a Certificate of Substantial Completion should be issued at this time. It is required that the engineer or architect conduct a pre-final inspection to ensure that a comprehensive punch list is developed and that the project will be substantially complete at the time of the grants division inspection.

Any warranties or instructions in addition to the shop drawings defined above must be made available to the owner at this time.

#### **F. Certificate of Substantial Completion**

A Certificate of Substantial Completion (Form 72) must be issued for each contract completed with grants division funds. This certificate must be signed by the owner, engineer or architect and contractor to signify that the contract is sufficiently complete to allow the owner to occupy and/or utilize the project for its intended use.

### **IV. POST CONSTRUCTION ACTIVITIES**

#### **A. Release of Liens**

A Release of Lien Form (Form 73) must be received from each contractor prior to final payment.

## **B. Final Payment and Release of Retainage**

Final payment, less any liquidated damages, shall be made to the contractor after:

1. Final inspection is completed.
2. A Certificate of Substantial Completion Form is signed.
3. Release of Debt and Liens are received.
4. All punch list items are resolved.
5. Final payrolls and equal employment opportunity data are accepted by the grantee.

## **C. Warranty Inspection**

A one-year warranty period must be instituted for each contract completed to ensure that the workmanship and materials of the contractor(s) and subcontractor(s) have been sufficient. A final warranty inspection must be conducted eleven months after the initiation of the warranty period to finalize any adjustments needed to correct covered deficiencies. Any such deficiencies shall be noted by the engineer/architect and provided to the contractor in writing and corrected.

## **V. GLOSSARY OF CONSTRUCTION MANAGEMENT TERMS**

**Addendum** Written documentation issued prior to bid opening which modifies or interprets the contract documents, drawings, plans and/or specifications, by additions, deletions, clarifications, modifications or corrections

**Bid** The offer or proposal of the bidder submitted on the prescribed form setting forth the prices for the work to be performed

**Bidder** Any firm, individual, partnership, or corporation submitting a bid upon request

**Bonds** Bid, performance and payment bonds and other instruments of security, furnished by the contractor and his surety in accordance with contract document requirements

**Change Order** A written order to the contractor signed by the owner, and recommended by the architect/engineer, authorizing an addition, deletion or revision in the work within the general scope of the contract documents, or an adjustment in the contract price or the contract time issued after executing the contract agreement

**Contract** The written contract agreement between the owner and the contractor covering the work to be performed

**Contract Price** The total dollars payable to the contractor under the Terms and Conditions of the Contract Documents

**Contract Time** The number of calendar days stated in the proposal and/or contract agreement for completion of the work

**Contractor** The individual, firm, partnership, or corporation, with which the owner has executed an agreement to perform work

**Drawings** The part of the contract documents prepared by the engineer/ architect, which shows the character and scope of the work to be performed

**Lump Sum** A specifically defined amount of work for which a total contract price is provided

**Notice to Proceed** Written communication signed by the owner and issued by the architect or engineer to the contractor authorizing him to proceed with the work by a specific date

**Notice of Award** Written notice from the owner to the apparent low bidder of bid acceptance

**Owner** A grantee, public body or authority, corporation, association, partnership, or individual for whom the work is being performed

**Plans** The approved plans, profiles, typical cross-sections, working drawings and supplemental drawings, or exact reproductions thereof, which show the location, character, dimensions, and details of the work

**Punch List** A list of construction deficiencies recorded during the final inspection that must be corrected by the contractor prior to project acceptance

**Resident Observer** A representative of the architect/engineer who is assigned to the project to observe the completed work of the contractor to ensure its consistency with the contract documents

**Specifications** A part of the contract documents consisting of written descriptions of a technical nature of materials, equipment, systems, and standards

**Subcontractor** An individual, firm or corporation having a contract with the contractor or any other subcontractor for the performance of a part of the site work

**Substantial Completion** That date certified by the architect/engineer when the construction of the project or a specified part thereof is sufficiently completed, in accordance with the contract documents, so that the project or specified part can be utilized for the purpose intended

**Surety** The corporation, partnership or individual, other than the contractor, executing a bond furnished by the contractor

**Unit Price** A specifically described unit of work or material for which a price is provided in the Contract

**VI. ARKANSAS ECONOMIC DEVELOPMENT COMMISSION  
CONSTRUCTION MANAGEMENT POLICIES**

- Basic compensation for contract document preparation includes reproduction costs of plans, specifications and contract documents for review and approval of all signing parties and review by funding agencies. Additional copies and copies of plans and specifications provided to prospective bidders may be provided at a reasonable fee to be paid by the requesting party. Grant funds in excess of basic compensation cannot be paid for additional reproduction expenses.
- A letter stating that acquisition is 100 percent completed must be submitted to the grants division prior to approval of the project advertisement for construction bids.
- The grants division grants manager should be notified of all major construction activities (e.g., bid opening, preconstruction conferences, final inspections, dedications, etc.) at least 10 days in advance.
- Prime contractors are responsible for all subcontractor compliance with grant agreement and contract document conditions.
- All construction projects must have a project sign located in the community. On building projects, a permanent plaque should be located in the facility as designed by the architect. The plaque should identify all of the project partners and be designed by the architect.