

CHAPTER 8

CONSTRUCTION INSPECTION & MONITORING OF PROJECTS OF STATE AGENCIES & DEPARTMENTS, PUBLIC K-12 SCHOOLS, PUBLIC POSTSECONDARY EDUCATION, PSCA, AND SIMILAR AUTHORITIES

| <u>Content</u> | <u>Page</u> |
|--|-------------|
| A. Applicability of Chapter | 8 - 1 |
| B. Introduction | 8 - 2 |
| C. Assignment of and Communications with the DCM Project Inspector | 8 - 2 |
| D. Statement of Field Observations, DCM Form B-10..... | 8 - 2 |
| E. Scheduled Conferences and Inspections | 8 - 3 |
| F. Periodic Inspections and Observations by the Design Professional | 8 - 5 |
| G. Engineers' Inspections and Observations..... | 8 - 5 |
| H. DCM Additional Inspections..... | 8 - 6 |
| I. Certificate of Substantial Completion, DCM Form C-13, and General Contractor's Roofing Guarantee, DCM Form C-9 | 8 - 6 |

A. APPLICABILITY of CHAPTER

This chapter defines construction inspection and monitoring that will be performed by DCM and sets forth related requirements and procedures for design professionals for projects supervised and administered by the Technical Staff. The types of projects to which this chapter applies includes projects of:

- State Agencies & Departments
- Public K-12 Schools
- Public Postsecondary Education (including Alabama Community College System and Universities)
- Public School & College Authority (PSCA)
- Alabama Building Renovation Finance Authority (ABRFA)
- Alabama Corrections Institution Finance Authority (ACIFA)
- Alabama Mental Health Finance Authority (AMHFA)
- Other "authorities" established by legislative acts to fund specific construction or improvement programs and which are assigned by legislative act or state Directors to DCM for administration and supervision.

B. INTRODUCTION

For projects administered by DCM, the Inspection Division: **(1)** performs scheduled and periodic inspections of in-progress and completed work to ensure code compliance and conformance with contract requirements, **(2)** monitors and administers the services performed by the design professional during construction, **(3)** monitors the contractor's progress and performance of the work, and **(4)** documents concurrence with final acceptance of the Work by the design professional and Awarding Authority/Owner.

BEFORE PROCEEDING WITH THE REQUIREMENTS OF THIS CHAPTER, it is recommended that the reader first refer to the "Summary of DCM Requirements by Project Type" in Appendix A to obtain a general understanding of DCM's requirements applicable to the proposed project.

This Manual only addresses requirements and procedures of DCM, the design professional should determine whether sources of project funding (such as federal funding) or regulations specific to the Awarding Authority/Owner may require supplementation of DCM requirements and procedures.

C. ASSIGNMENT of and COMMUNICATIONS with the DCM PROJECT INSPECTOR

The Inspection Division is composed of inspectors located in and assigned to territories of the state, headed by a Chief Inspector who is also assigned to a territory, but maintains an office in Montgomery with support staff. Inspector assignment is by territory, whose name, field office address, telephone number and email address will be provided to the design professional at the beginning of the project. Inspectors' contact information is also available on DCM's website www.dcm.alabama.gov.

The design professional is to provide the DCM Project Inspector with a copy of each inspection report at the Inspector's field office address or email as it is submitted to the DCM Montgomery office. **All reports and correspondence must bear the DCM (BC) Project Number.** The design professional must contact the DCM Inspector at least seven (7) days before scheduling inspections or meetings requiring the DCM Inspector's attendance. Scheduling with the Project Inspector should be confirmed in writing.

D. STATEMENT of FIELD OBSERVATIONS, DCM Form B-10

All site inspections and observations are to be recorded utilizing DCM Form B-10, Statement of Field Observations, which is listed in Appendix B. The standard form contains spaces for reporting typical information regarding project status, **ALL BLANK SPACES ARE TO BE COMPLETED ON EACH REPORT.** The design professional must also concisely report any deficiencies encountered, problems or questions raised by the contractor, instructions or answers given to the contractor, and administrative or

construction delays observed. The design professional must endeavor to write his or her reports utilizing descriptions of components and areas that are consistent with descriptions contained in the plans and specifications so that the "third-party reader" can understand what is being discussed and where it is located in the project. Photographs may be included for clarity. It is recommended to keep photos to a minimum. Each report shall be distributed by the design professional to the Awarding Authority/Owner, contractor, Technical Staff, and DCM Project Inspector promptly after conducting an inspection so that all parties are kept current regarding events on the project.

DCM utilizes a document management system which is capable of scanning, storing, retrieving, and faxing documents. To produce an acceptable quality in documents retrieved from this system, the following is required of inspection reports and attached documents submitted to the Technical Staff:

- a. Keep documents to twenty-five pages or less; documents over twenty-five pages must be submitted as hard copies.
- b. Do not highlight text. Highlighted text does not produce a good scanned image.
- c. Submit only letter-size (8½ X 11), one-sided documents.
- d. Do not use colored paper or staples; use plain paper and gem clips.

E. SCHEDULED CONFERENCES and INSPECTIONS

The design professional shall schedule and conduct the following project conferences and inspections. The DCM Project Inspector shall be contacted and confirmed in writing at least fourteen (14) days before scheduling.

1. PRE-CONSTRUCTION CONFERENCE

Within two weeks after the date of issuance of the Notice To Proceed, the design professional is to conduct a pre-construction conference to be attended by the contractor, Awarding Authority's/Owner's representative, and DCM Project Inspector; on projects involving significant work in engineering specialties, consulting engineers and major subcontractors should also attend. The conference should be conducted at the site of the work if suitable facilities are available. During the conference the duties and responsibilities of the various entities are to be discussed and administrative requirements and procedures explained. Minutes of the conference should be prepared by the design professional and distributed to the attendees and Technical Staff.

DCM Form B-8, Pre-Construction Conference Checklist, is listed in Appendix B as a recommended reference for this conference. If re-roofing is the sole purpose of the project, the business of a Pre-construction Conference may be covered during the Pre-roofing Conference.

2. PRE-ROOFING CONFERENCE

On projects involving the installation of a new roof system or replacement of an existing roof, a pre-roofing conference is required before any roofing materials are installed. This conference shall be conducted by the design professional as described in Chapter 5, Section C.4, and attended by the DCM Project Inspector.

The Architect shall prepare a written report indicating actions taken and decisions made at this pre-roofing conference. This report shall be made a part of the job record and copies furnished to the general contractor, the Awarding Authority/Owner, the Technical Staff, and the DCM Project Inspector.

3. ABOVE CEILING INSPECTION(S)

The design professional is to conduct an above ceiling inspection of all spaces in the building before the ceiling material is installed. The inspection shall be attended by the DCM Project Inspector, the consulting engineers who designed systems installed above the ceiling, the general contractor, the subcontractors/installers of systems above the ceiling, and the subcontractor/installer of the ceiling framing system. In buildings of multiple floors and/or large floor areas, multiple above ceiling inspections shall be conducted consistent with construction sequencing and phasing to avoid delaying progress.

Above ceiling inspections are to be conducted at a time when all above ceiling systems are complete and tested to the greatest extent reasonable pending installation of the ceiling material. System identifications and markings are to be complete. All fire-rated construction including fire-stopping of penetrations and specified identification above the ceiling should be complete. Ceiling framing and suspension systems should be complete with lights, light supports, grilles and diffusers, access panels, fire protection drops for sprinkler heads, etc., installed in their final locations to the greatest extent reasonable. Above ceiling framing to support ceiling mounted equipment should be complete. In short, the above ceiling construction should be complete to the extent that after the inspection the ceiling material can be installed without disturbance.

4. FINAL/LIFE SAFETY INSPECTION

The design professional and consulting engineers shall conduct a Final/Life Safety Inspection of the work, which will be attended by the DCM Project Inspector, the Awarding Authority's/Owner's representative, the general contractor, and appropriate subcontractors. The purpose of this Final/Life Safety Inspection shall be to establish that the Work, or a designated portion of the work, is substantially complete, accepted by the design professional, Awarding Authority/Owner, DCM Inspector, and ready for occupancy or use by the Awarding Authority/Owner. **Prior to scheduling the Final/Life Safety Inspection, the design professional should remind the Awarding Authority/Owner to make the necessary preparations to assume building security, maintenance, utility services, and insurance coverage on the date of substantial completion.** At the conclusion of this inspection, items requiring correction or completion should be minimal and

require a short period of time for accomplishment; therefore, the design professional shall have conducted detailed inspections to satisfy himself that the Work is ready for Final Inspection and acceptance before scheduling the inspection. If the project includes the installation, or modification, of a fire alarm system, **THE FIRE ALARM SYSTEM MUST BE TESTED AND CERTIFIED BEFORE THE FINAL INSPECTION.** The design professional is to submit inspection reports evidencing follow-up inspections accounting for correction and/or completion of items listed in the Final Inspection.

5. YEAR-END INSPECTION

An inspection is required prior to the expiration of the contractor's one year warranty period. The inspection shall be scheduled and conducted by the design professional and shall be attended by the DCM Project Inspector, Awarding Authority's/Owner's representative, general contractor, and applicable consulting engineers and subcontractors. The design professional's report of this inspection shall be promptly distributed to all attendees. This report will serve as confirmation that the contractor was notified of deficiencies needing repair or correction in accordance with Guarantee of the Work of the General Conditions of the Contract.

F. PERIODIC INSPECTIONS and OBSERVATIONS by the DESIGN PROFESSIONAL

In the absence of weekly, or reasonable explanations of their absence, the DCM's Chief Inspector must assume that the design professional is not fulfilling his obligations under the O/A Agreement.

The Standard Articles of the O/A Agreement provide that the frequency of the design professional's site visits and inspections shall be consistent with the size and nature of the project, but will include at least one per week. The weekly inspection requirement when weather and other conditions delay progress or inherently slow phases of construction make weekly site visits unwarranted, but in such periods the Technical Staff and DCM Project Inspector are to be advised of the situation by use of a Statement of Field Observations that states that no weekly visit was made and why. In the absence of weekly Statements of Field Observations, or reasonable explanations of their absence, the DCM's Chief Inspector must assume that the design professional is not fulfilling his or her obligations under the O/A Agreement.

G. ENGINEERS' INSPECTIONS and OBSERVATIONS

The Basic Services of the O/A Agreement include inspections by the consulting engineers and other consultants who designed the specific disciplines of the work. Unless specific inspection requirements are negotiated into the Agreement, the number and frequency of inspections by its consultants is the responsibility of the design professional, but the Standard Articles require them to be appropriate to each discipline

of design and in keeping with the design professional's obligations to the Owner. The design professional is not required to have its consultants participate in the year-end inspection except in the case of complex systems or the presence of recurrent problems that warrant inspection by the system designer. Reports of engineers' inspections are to be attached to the primary design professional's Statement of Field Observations for distribution.

H. ADDITIONAL INSPECTIONS

Additional required inspections include fire alarm inspections, kitchen hood inspections and elevator inspections. Also, the DCM Project Inspector may periodically inspect the project, usually scheduling his inspections around key stages of construction based upon information reported in the Statement of Field Observations. As the design professional or Awarding Authority/Owner deems appropriate, the DCM Project Inspector can be requested to schedule special inspections or meetings to address specific matters. The findings of DCM inspections will be transmitted to the Awarding Authority/Owner, contractor, DCM Montgomery office, and design professional in a format similar to the Statement of Field Observations.

I. CERTIFICATE of SUBSTANTIAL COMPLETION, DCM FORM C-13 and GENERAL CONTRACTOR'S ROOFING GUARANTEE, DCM FORM C-9

DCM Form C-13, Certificate of Substantial Completion, is listed in Appendix C and is the document that: **(1)** establishes acceptance of the work, or a designated portion of the work, by the design professional, Awarding Authority/Owner, and DCM, **(2)** establishes that the Awarding Authority/Owner can occupy or use the work, or designated part, **(3)** establishes the date upon which the work, or designated part, was substantially complete, **(4)** establishes the beginning date of the one-year and special warranties for the work covered by the certificate, and **(5)** establishes the date upon which the Awarding Authority/Owner becomes responsible for building security, maintenance, utility services, and insurance. If it is agreed between the contractor and Awarding Authority/Owner that responsibility for building security, maintenance, utility services, or insurance transfer to the Awarding Authority/Owner or that any warranties begin on a date other than the date of substantial completion, such agreements must be recorded as an attachment to the Certificate of Substantial Completion. This document shall be the product of the Final Inspection. During the Final Inspection all parties should agree upon the Date of Substantial Completion, which may, or may not, be the date of the Final Inspection.

The Date of Substantial Completion ends the general contractor's exposure to Liquidated Damages for late completion of the work or the portion of the work covered by a Certificate of Substantial Completion. However, the General Conditions allow the general contractor 30 days, or a longer period if stated on the Certificate, to complete or correct "punch list" items recorded with the Certificate. If the contractor fails to complete

or correct “punch list” items within this time, any resulting expenses incurred by the Awarding Authority/Owner, such as additional services rendered by the design professional, may be charged to the contractor.

It should be noted that the Certificate of Substantial Completion states that, If completed or corrected within the period stated in the Certificate, warranties of these items commence on the Date of Substantial Completion, otherwise such warranties commence on the date of Final Acceptance of each item.

The Certificate of Substantial Completion marks a pivotal point of the project, but is not valid until signed by all parties. The original document shall be prepared and signed by the design professional and then signed, in order, by the general contractor, Awarding Authority/Owner, DCM Project Inspector, DCM Chief Inspector, and Director. For projects which include roofing work, the General Contractor’s (5-year) Roofing Guarantee, DCM Form C-9, must be executed by the general contractor and attached to the Certificate of Substantial Completion. If the contract specifies any other roofing warranties to be provided by the roofing manufacturer, subcontractor, or general contractor, they must also be attached to the Certificate of Substantial Completion. **The Technical Staff will not sign the Certificate of Substantial Completion in the absence of the roofing guarantees.** The fully executed form will be distributed to all parties by the Technical Staff. A copy of the fully executed Certificate of Substantial Completion with all attachments shall be attached to DCM Form B-13: Final Payment Checklist.