

## CHAPTER 4: PROJECT MANUAL GUIDE

### 4.01 GENERAL

- A. The Designer's requirements for preparation of a Project Manual are defined by the Agreement. This chapter provides the Owner's guidance for procedures and use of standard documents in developing the Project Manual. Standard documents are provided in Appendix 2 Standard Bidding and Construction Documents. The C42 Standard Document Instructions and Checklist provided in Appendix 1 lists the standard documents and serves as a table of contents for Appendix 2.
- B. The Designer is responsible for accurate and appropriate application and completion of the standard documents. Further instructions for selected standard documents are provided herein.
- C. Class of Documents: Before assembling the Project Manual, most likely at the time outline specifications are developed, consult the Owner on the nature of the contract to be procured and which class of standard documents is appropriate. Classes require distinct standard documents in some cases, such as bid forms, but also use some documents in common. The classes of standard documents are:
  - 1. General work documents are intended for most construction over \$100,000. This normally includes any procurement via Design/Build, Best Value, and Construction Management. The Owner will instruct the Designer on the extent to which these need bidding requirements, contracting forms, and conditions.
    - a. Traditional design, bid, and lump sum construction
    - b. Alternative delivery Best Value procurement and lump sum construction
    - c. Alternative delivery CM/GC trade bidding for GMP construction services
  - 2. Non-Construction documents are intended for direct purchases not involving on-site construction. Alternates, unit prices, and allowances options are not provided.
- D. In preparing the Project Manual, the Owner recommends use of the current applicable best practice recommendations made by the American Institute of Architects and the Construction Specifications Institute.
- E. Format the Project Manual for 8.5 inch by 11 inch pages and capable of two-sided printing with each section beginning on a right-hand page.
- F. Prepare the Project Manual for the unique requirements of the project. As standard documents or document templates are adopted for use in the Project Manual, the Designer shall ensure that provisions which are inapplicable to the project are removed, shall take care to remove unnecessary and redundant material, and shall make appropriate revisions to tailor concise, complete, and coordinated documents for the project.
- G. The Owner requires that construction contracts are procured through procedures and documents promoting competition to the greatest extent possible.

### 4.02 INSTRUCTIONS FOR SELECTED STANDARD DOCUMENTS

#### A. 00 00 01 Project Title Page

Prepare the Project Title Page in any style or format that maintains consistency with the following guidance. A Project Title Page is not required if the cover of the Project Manual provides the prescribed content. If the cover does not also serve as the

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Project Title Page the cover shall at a minimum include the project title and SBC Number.

1. Example format and content:

**PROJECT MANUAL**

Date of reference

**PROJECT**

SBC No. XXX/XXX-XX-XXXX

Institution/Campus Name

Project Name

**COUNTY**

County Name

**OWNER**

State Procurement Agency Name

**DESIGNER**

Design Firm Name

Address

Phone Number

**CONSULTING ENGINEERS**

Discipline Name (e.g. Structural), Name of Consulting Firm or Individual

Similar for Second Discipline

Etc.

2. The Designer's seal and signature is to be affixed to only the cover and/or title page that provides the prescribed content, or a specific Seals Page which shall be titled such and numbered 00 01 07. The Designer's seal and signature are required by statute Tennessee Code Annotated § 62-2-306.
3. Additional graphics and information such as names of consulting engineers are acceptable on the cover and/or title page, provided the content requirements stated above are met.

B. 00 01 10 Table of Contents:

Provide a table of contents for the entire Project Manual which shall not be referred to as an index. Include drawings and schedules that are in the Project Manual. Providing a table of contents for each Division at its beginning is discouraged as redundant.

C. 00 11 16 Invitation to Bid

00 11 19 Request for GMP

00 11 19 Invitation to Bid – Non-Construction

Complete the appropriate section in accordance with Owner's specific requirements for the project and make the following arrangements.

1. Establish a source for bidders to obtain PDF copies of Bidding Documents at no cost and identify the source in the Invitation to Bid. Any charges for this service should be reviewed with and approved by the Owner prior to using the source.
2. Arrange for bidders obtaining Bidding Documents from the established source to be tracked as Bidders of Record that will receive addenda.

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3. Communicate to plan rooms the web address and process to access bidding documents.
4. Ensure hard copies of Bidding Documents and portions thereof are available for nonrefundable purchase by Bidders of Record from the established source at a reasonable cost.

### D. 00 41 13 Bid Form

1. If the project includes a roof a Three Year Roof Bond shall be required and a proposed amount shall be reviewed with the Owner and upon approval stipulated on the Bid Form. Examples of appropriate stipulations are as follows.
  - a. "An amount equal to the Base Bid"
  - b. "An amount equal to Alternate No. 1"
  - c. "An amount equal to XX% of the Base Bid", deriving the percentage from the Designer's estimate for the roof work
  - d. A dollar amount, deriving the amount from the Designer's estimate for the roof work.
2. If the project does not include a roof confirm with the Owner that a Three Year Roof Bond is not required and upon approval stipulate "Roof Bond Not Required" on the Bid Form.
3. Complete the information for the Contract Time after review and approval by the Owner, with information added as applicable for phases. Follow the definition of Contract Time in the General Conditions of the Contract for Construction, counting days from and including the Notice to Proceed date and the date required for Substantial Completion.
4. Complete the information for Liquidated Damages after review and approval by the Owner.
5. Revise the text for identifying Alternates to show for each the name of the Alternate or "Not Applicable". Ensure consistency with 01 23 00 Alternates. Use of Alternates requires Owner review and approval.
6. Revise the text for identifying Unit Prices to show the number of Unit Price Items (shown as "XX" on the blank form) or "Not Applicable" if no Unit Prices will be used in bidding. If Unit Prices are used complete the table to show the information for "Item No.", "Unit", and "Name/Work Included". Ensure consistency with 01 22 13 Unit Prices. Use of Unit Prices requires Owner review and approval.

### E. 00 41 63 Bid and Agreement Form – Non-Construction

1. The standard document serves as both bid form and form of agreement. When filling it in, compare it to the printed or web-posted standard, and preserve the formatted layout.
2. Complete the Owner's Representative information with the name and address of the design firm or other entity that will be serving in this capacity during bidding and the performance of the Work. Joint venture Designers should use a single address.

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3. Complete the information for Contract Time and Liquidated Damages in accordance with the instructions above for 00 41 13 Bid Form.
  4. Complete the information for Terms of Agreement as an enumeration of the Contract Documents as released for bidding.
- F. 00 42 23 GMP Summary  
00 42 71 GMP List of Trade Subcontracts  
00 42 75 GMP Disclosure of General Conditions

For GMP trade bidding packages the CM/GC will provide its own bid forms and bid envelopes to its trade bidders, separate from the documents prepared by the Designer, but the Designer is to include these sections, unedited.

G. Bonds

The State Building Commission requires bonds on awards over \$100,000. Including the forms will not impose the requirement on lesser contracts. Project Manuals for Construction Management normally only need the bond forms on the initial GMP trade bidding package release; or, when a scope of work is being added that includes a roof, then a roof bond form may be needed. Otherwise, the bond will have already been established.

H. 00 61 43 Three Year Roof Bond

Reference the preceding guidance for 00 41 13 Bid Form regarding the Three Year Roof Bond and include this Section as applicable.

I. 00 72 13 General Conditions of the Contract for Construction

The electronic version of this section is provided by the Owner in PDF format which includes an unsigned Certification of Document's Authenticity as the last page. The Owner will provide a signed certification upon request to be included in the Project Manual.

J. 00 72 13.2 Supplementary Conditions – Demolition Requirements

The use of this section requires Owner written approval. Its intended use is on major demolition projects.

K. 01 11 00 Summary

Consult with the Owner for specific project information and submit a draft 01 11 00 Summary for Owner approval using the following guidance.

1. Describe in one paragraph the Base Bid Work.
2. Describe any Work sequence required.
3. Describe any required phasing of the Work.
4. Describe any work by others including the Owner.
5. Describe each aspect of any special work restrictions or coordination with others.
6. Describe restrictions to access and use of premises. Institutions may have security regulations that may affect the Contractor's schedule. Have the Owner acquaint you with the controls at the facility. Describe the conditions for partial occupancy, if any will be permitted or required. Identify the extent of the Owner's on-site operations and if the Owner intends to continue these during construction.

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7. Describe provision and payment of water and electric power required for construction activities. Subject to availability and Owner's consent, the Contractor may be allowed to use available utilities, such as the Owner's water, power, and possibly temporary heat if tied into a central system, subject to restrictions as follows.
  - a. The Owner will have the right to direct tap points and identify panels and other services that the Contractor may use.
  - b. The Contractor will be responsible for installation, maintenance, and removal of temporary services.
  - c. The Owner will have the right to restrict use in time of emergency or for repeated abuse by the Contractor.
8. For non-construction projects, particularly a contract for furniture to be delivered while a separate contract for new construction or renovations is still ongoing, ensure that clear expectations are established regarding close coordination of deliveries with the Contractor controlling the site. Describe the arrangements to move products directly into their final destination or the requirements to temporarily store on site before separately moving products to a final destination, or requirements to store and stage off-site.

### L. 01 21 13 Allowances

By specifying an allowance, the Designer assumes responsibility to monitor and control the use of the allowance, and to ensure that Work does not exceed the allowance.

### M. 01 21 15 List of Allowances

If the project has phases or alternates, clearly define in which phase and/or alternate each allowance occurs. Allowances that occur in more than one phase of the Work should be specified as a separate allowance for each Phase. Allowances that are changed by acceptance of an alternate should be specified according to their base work, with the increase associated with the alternate being specified in the alternates section 01 23 00.

### N. 01 22 13 Unit Prices

Specifying a unit price requires also specifying a base quantity, which results in an allowance equal to the unit price times the base quantity. The Designer assumes responsibility to monitor and control the use of the allowance, and to ensure that Work does not exceed the allowance.

### O. 01 22 15 List of Unit Prices

Specify unit price items with an item number, reference to related sections, Base Quantity, Unit of measure, Unit Price Per Unit, and a caption for the Work included which relates to a complete description in the related sections.

### P. 01 23 00 Alternates

1. List and number alternates in order of priority after the Base Bid. Alternates shall be additive and limited in number in accordance with the policies of the State Architect and the State Building Commission.

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2. Give each Alternate a simple, brief, unique name, suitable for reference in the Bid Form and eventual Agreement, and a concise definition with reference to applicable specifications and drawing details.
- Q. 01 50 00 Temporary Facilities and Controls
1. As needed, edit to specify temporary construction, construction aids, vehicular access and parking, temporary barriers and enclosures, and temporary controls.
  2. Owner may have specific requirements for a project sign, such as requiring a certain logo, size, or style. Check for Owner restrictions and approval requirements before specifying a project sign.
- R. 01 57 23 Temporary Storm Water Pollution Control
- Include this section if a Tennessee Department of Environment and Conservation (TDEC) Storm Water Pollution Prevention Plan (SWPPP) and Construction General Permit Notice of Coverage (CGP-NOC) apply. Also follow the following instructions.
1. Obtain approval of the SWPPP from TDEC if applicable.
  2. Submit the Notice of Intent (NOI) to and obtain the preliminary NOC from TDEC.
  3. The section is intended to be used as-is, but is posted in editable format, in the case of required editing. If editing, Articles 1.01 - 03 should not be altered without express consent of Owner.
  4. Include a copy of the NOC and the SWPPP following the Section. They become a part of the section by reference in Paragraph 1.02.A.
- S. 01 74 00 Cleaning and Waste Management
- Specify the Contractor's general responsibilities at the end of the project for final cleaning and removal of debris, waste materials, rubbish, tools, construction equipment, machinery, and surplus materials.
- T. 01 78 01 Closeout Submittals  
01 78 02 Closeout Submittals
1. For General Work include one of these two sections to complement Conditions with regard to Contractor's responsibilities for maintaining a record of actual construction, compiling data binders, and submitting these to Designer for review prior to delivery to Owner.
  2. For minimum requirements use 01 78 01.
  3. For projects which are relatively complex or of varied scope use 01 78 02.
- U. 01 91 13 Commissioning  
01 91 23 Performance Testing Identification Form  
01 91 26 Performance Testing Procedures Form  
01 91 29 Functional Performance Test Certification
1. Commissioning is required on all State projects falling under requirements of State High Performance Building Requirements (HPBr) or on other projects as required by the Owner.
    - a. Enhanced commissioning requires the Owner to engage a Commissioning Agent, who will consult during design, and lead commissioning activities in construction.

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- b. Basic commissioning occurs on other work with heating, ventilating, air conditioning, and refrigeration systems and equipment, lighting controls, and domestic hot water.
  2. If enhanced commissioning has been approved for the project, the Commissioning Agent, will provide detailed commissioning specifications for the Designer to include.
  3. When basic commissioning is required, coordinate with divisions 23 and 25 and include the above listed sections at a minimum.
  4. When basic commissioning is specified, provide a summary list of equipment and systems to be commissioned as a companion section numbered in sequence to follow the standard.
- V. 07 50 35 Existing Roofing System Warranty

For work that penetrates, modifies, or patches an existing roof that is under warranty:

  1. Include a copy of the existing warranty that is in effect, typically as section 07 50 35.
  2. Specify in an applicable section that the provider of the existing warranty is to be engaged to supervise and approve the work affecting the warranted roofing system and to provide a letter certifying the following.
    - a. The work performed upon the warranted roofing system was provided in accordance with the warrantor's requirements.
    - b. The work performed does not compromise the existing warranty.
    - c. The existing warranty remains in full force and effect.

W. 07 50 36 Total Roofing System Warranty  
07 61 02 Twenty Year Total Metal Roofing System Warranty

Unless otherwise agreed to by the Owner, use the appropriate section if the project includes a roof and develop the roofing technical specifications to meet the following requirements.

1. Prohibit any other warranty form.
2. Prohibit incorporation or attachment of any other warranty, stipulations, or qualifications.
3. If applicable, require separate warranties for each building, roof, or type of roofing membrane.
4. For membrane roofs using 07 50 36 Total Roofing System Warranty, require a warranty term of thirty years unless otherwise directed by the Owner.
5. Require inclusion of applicable roofing system components by exact naming of each component.

### 4.03 SPECIFICATIONS INSTRUCTIONS

- A. Sections of Division 01 are unique as specifications in that they relate directly to bidding requirements and to all parts of the written Contract Documents. Sections of Divisions 02 through 49 constitute basic units of the total specification, covering requirements for one portion of the Work.

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- B. Do not assign work to trades in the specifications or otherwise stipulate construction means, methods, and techniques. Specifications may establish qualifications for those performing a specific task.
- C. Avoid Proprietary Specifications:
  - 1. When specific manufacturers are named, the naming of a specific manufacturer should serve only to establish a level of quality. Specifications should not be made proprietary unless there is sufficient justification, which must be well documented and specifically approved by the Owner.
  - 2. When proprietary specifications are justified and approved by the Owner the specification shall clearly state that no substitution is acceptable for that product.
  - 3. Avoid listing an overabundance of manufacturers.
  - 4. Use performance, descriptive, or reference standard specifications to the greatest extent possible. If a manufacturer's name is used to establish a level of quality, include the model number and the names of at least two acceptable products. Only the necessary information should be extracted and used from specifications produced by manufacturers.
  - 5. The Owner may permit the substitution of products of equal or better quality in accordance with 01 25 13 Product Substitution Procedures. Substitution requests before receipt of bids shall be in accordance with 00 21 13 Instructions to Bidders.
- D. Augment, but do not repeat provisions stipulated elsewhere in the Contract Documents. Avoid paragraphs such as work included and related sections.

END OF CHAPTER