

## 506 – Phase B Submittal

The Architect-Engineer will furnish to the Division of Engineering and Contract Administration, Using Agency and others as determined by the Project Manager a Phase B submittal package. Generally a minimum of six (6) sets of submittals will be required for the Phase B review, but the Project Manager will determine the exact number needed for any given Project. The Phase B submittal shall include the following in bound form:

**506.1 Phase B Checklist:** With the Phase B submittal, the Architect-Engineer shall prepare the Phase B Architect-Engineer Checklist. This checklist shall be placed at the beginning of the Phase B submittal. **See Section 500.1 - Phase B Architect-Engineer Phase B Checklist.**

**506.2 Federal Funding:** When Federal funding is involved, the Using Agency and/or the Division of Engineering and Contract Administration will update the status of the Federal review to the Architect-Engineer. If the Architect-Engineer is responsible for these reviews then they shall provide the status of the federal review. The Architect-Engineer shall include this status in the Phase B submittal.

**506.3 Phase B Commissioning Plan:** The Architect-Engineer shall obtain and include the Phase B Commissioning Plan in the Phase B Submittal: The Phase B Commissioning Plan shall include the following minimum requirements:

- Revisions to the Commissioning Plan created in Phase A.
- Improvements to the accuracy of the plan created in Phase A.
- Inclusion of any alterations and/or decisions made during design.
- A defining of the Construction and Warranty Phase commissioning requirements.

**See Sections 019113-1 through 019113-9.1** for additional Commissioning requirements.

**506.4 Phase B Design Development Drawings:** The Architect-Engineer shall prepare these drawings in 24" x 36" or 30" x 42" bound format showing the final scope, relationships, forms, size and appearance of the Project. Phase B drawings may be submitted as half-size or 11" x 17" prints upon approval of the Project Manager. Include the following at a minimum:

- **Site plan** shall be developed sufficiently to establish grades, cuts, fills, and major walkways, drives, structures, etc. This work is to be prepared on duplicates of the original certified surveyor's topographical site survey.
- **Site Utility Plan** shall include all utility sources, capacities, and routing.
- **Building Plans** shall be developed at working drawing scales showing all partitions, utility spaces, mechanical areas, service areas and assigned functional areas as programmed. All spaces shall be identified. Walls shall be properly indicated as to width and type. All plans and spaces shall be correctly dimensioned. North arrows shall be shown on all plans.
- **Elevations** of building(s) shall be shown with heights established, materials defined and finish grades indicated with ground elevations established.
- **Sections** shall be provided, including structural and mechanical systems related to the architectural spaces, ceiling and wall types.
- **Typical construction details** shall be provided defining construction requirements for major project elements or features.
- **Structural plans** shall show foundation, building framing systems including floor and roof framing, and typical structural details.

- **Facility Services Subgroup (CSI Divisions 21000 - 29000)** Phase B MEP drawing requirements are presented in the Architect-Engineer's Phase B Checklist. **See Section 500.1 - Phase B Architect-Engineer Phase B Checklist**
- **Outline Specifications:** The Architect-Engineer shall update the Phase A Outline Specifications and include in the Phase B Submittal. **See Section 307 for example Outline Specifications.**
- **Materials/Equipment Data Sheets:** Include Materials/Equipment data "or cut" sheets showing selections that establish requirements for all major equipment, fixtures and building systems.
- Provide all other studies, calculations, evaluations as outlined in the Phase B checklist. **See Section 500 Phase B Checklist.**

**506.5 Phase B Cost Estimate:** The Architect-Engineer shall verify and further develop the Phase A cost estimate:

- Considering the economics that will affect the construction cost of the Project. The estimate must be researched for cost trends, escalation and industry factors to ensure its sufficiency through the design phases, the bidding process, and construction.
- Preparing the cost estimate on the Phase B Estimate of Construction Cost form, provided by the Division of Engineering and Contract Administration (available in Excel format). Additional sheets with detailed breakout cost information shall be provided as appropriate. **See Section 508 Phase B Estimate of Construction Cost.**
- The Architect-Engineer shall not include any contingency as part of the estimate. Contingency factors are included in separate Division of Engineering and Contract Administration documents. The Phase B construction cost estimate has a space provided for the authorized Using Agency signature of acceptance of the estimate.

**506.6 Project Schedule:** The Architect-Engineer shall include the following updated schedule information in the Phase B Estimate of Construction Cost:

- Significant Project design milestones such as review submittals for Phase C.
- Review periods for the Using Agency and the Division of Engineering and Contract Administration..
- Anticipated construction start and Substantial Completion dates.

**506.7 Space Study Statement:** The Architect-Engineer shall update the Phase B Estimate of Construction Cost form provided by the Division of Engineering and Contract Administration. **See Section 508 for the Phase B Estimate of Construction Cost Form.**

**506.8 Commissioning:** The Architect-Engineer shall participate in the Commissioning Authority Design Development review process if Enhanced Commissioning is used.

**506.9 LEED:** For Projects Seeking LEED Certification, the Architect/Engineer shall perform the following during Phase B:

- Finalize LEED points being pursued on the Project.
- Provide an updated energy model as required to document compliance with the required number of points for Energy and Atmosphere Credit 1.