

Serves as a structural engineer on the staff of a design organization responsible for planning, and design of new and/or extension, conversion, or modernization of existing buildings or facilities. Assignments involve performance of office and field design duties associated with in house design and architectural/engineering review on project sites with diverse climatic, geographic, and environmental conditions that involves structural design of timber and wood framing systems, concrete, reinforced concrete, pre-stressed concrete and concrete masonry unit systems, structural steel and light-gauge framing systems, building foundations, bridges, dams, roadways, and other structural engineering assignments of a complex nature. Applies the latest design and construction techniques to all type structures and buildings.

1. Performs technical design, contract document preparation, review, assessment, and provides guidance, including the resolution of complex structural design problems, development of Building Information Models (BIM), CADD drawings, specifications, and design analysis, as well as the preparation of appropriate documents for agency officials, client agencies, and contract Architect-Engineer (A-E)/Design-Build (D-B) firms.
2. Prepares statement of structural engineering scope of work and detailed man-hour estimates used for negotiating with A-E firms for design services; and all pertinent correspondence, plans, reports, and A/E contract criteria necessary for project completion.
3. Reviews, evaluates, and determines adequacy of shop drawings, samples, certificates of compliance, laboratory analyses, and other submittals and data from contractors covered by Government contracts. Determines compliance or noncompliance for such submittals.
4. Consults with construction personnel to resolve difficult and complex problems developing during construction and prepares and reviews recommendations for corrective action.
5. Evaluates design and construction objectives, identifies most economical and efficient procedures for building design, renovation and new construction, including in house design, coordinating with other architects and/or engineers in coverage of all technical areas, resolving overlapping responsibilities among technical disciplines concerning attention to design, and meeting total building objectives and schedules; and preparing all drawings, specifications, and supporting documents necessary for advertised or negotiated procurement. Provides input for cost and value engineering activities.