

BUILDING ENGINEER (GSD)

NATURE OF WORK: Under limited supervision, performs highly complex engineering, architectural and/or technical work managing large, on-going construction, maintenance and renovation projects for major building infrastructure systems such as HVAC systems, environmental conditions, structural systems, electrical and fire protection systems for the General Services Division. Work involves research, analysis and evaluation of emerging technologies as applied to the design, construction, maintenance, operations and use of the building infrastructure. Work involves project management and oversight including planning, design, development and timely completion of capital projects in the assigned area. Responsible for management of all phases of multiple projects simultaneously. Oversees the development of project definition and scope; determines maximum cost effectiveness among alternatives; plans, maintains and adjusts project schedules; determines the engineering and technical services needed and assures that all technical reviews are completed. May represent the Division at public meetings, hearings or discussions with public officials or other state and federal agencies. Work is performed in office and field settings. Occasional statewide travel is required. Performs related work as required.

EXAMPLES OF WORK PERFORMED

- Plans and develops complex projects regarding high performance building energy systems and environmental/life safety systems for new buildings, major renovations and existing building infrastructure.
- Conducts engineering and technical evaluations related to projects; prepares and presents reports; determines life-cycle cost analysis and other economic analysis related to energy use, environmental considerations and sustainable design processes.
- Develops guidelines and specifications for use by General Services Division project managers and engineers to meet energy and environmental goals.
- Consults with user agencies and technical staff to define project scope; makes recommendations on alternative designs for cost effectiveness; develops project management plans.
- Reviews construction plans and specifications; determines nature of technical services needed in support of project; assures the timely completion of all technical reviews, permit applications, surveys and regulatory reviews.
- Reviews or oversees the preparation of proposal requests; participates in the bidding process according to regulations and procedures, as necessary.
- Monitors projects through all phases; assures that projects are designed and constructed in accordance with cost estimates, specifications and time schedules and other contract requirements; conducts regular meetings with contractors, engineering and consultant groups to resolve project issues and problems.
- Conducts on-site inspections of projects to ensure compliance contract provisions and that sites meet safety and environmental regulations.
- Prepares or oversees the preparation of regular and special reports on project status; maintains or oversees the maintenance of project records, documentation and reports.

BUILDING ENGINEER (GSD) (CONT'D)

EXAMPLES OF WORK PERFORMED (CONT'D)

Serves as contact person for contractors, consultants, suppliers and regulatory agencies to resolve problems; evaluates and approves requisitions for payment and change orders.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES

Knowledge of the principles and practices of architecture and engineering related to building construction and related mechanical and environmental systems.

Knowledge of the theories and principles of energy efficiency and related current and emerging technologies.

Knowledge of the principles and practices of construction project management.

Knowledge of the federal and state occupational safety and environmental regulations related to building construction and renovation.

Knowledge of construction costs, materials and time periods for project design and construction phases.

Ability to read and interpret building construction plans and drawings and construction project contracts.

Ability to use computer-based data systems and office automation software.

Ability to communicate effectively with contractors, consultants and public officials; to negotiate the resolution of contract problems and conflicting demands.

Ability to prepare building construction/renovation project plans and work schedules.

Ability to establish and maintain effective working relationships with user agencies, contractors, consultants, technical staff and others.

MINIMUM QUALIFICATIONS

Training: Bachelor's degree in architecture or engineering from an accredited four-year college or university.

Experience: Four years of full-time or equivalent part-time paid experience in architecture or engineering, plus two years of full-time or equivalent part-time paid experience in commercial building project management in the area of assignment.

Areas of Assignment

Architecture

Engineering

Electrical

Environmental

Mechanical

Structural

Established: 6/15/06

Reinstated: 10/15/09

Effective: 10/15/09