

SENIOR ENGINEER (ELECTRICAL)

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, incumbents function as fully competent Professional Engineers in all conventional aspects of the assignment. Incumbents independently perform assignments with instructions as to the general results expected. A Senior Engineer plans and conducts work requiring judgment in the evaluation, selection, adaptation and modification of standard techniques, procedures and criteria. An incumbent serves as project leader in design work or as resident engineer on a construction job concerned primarily with planning, inspection or testing of all electrical installations. On a project basis, an incumbent reviews and inspects the work of engineers, construction coordinators, draftsman, technicians and others who perform specific assignments. This level differs from the Associate Engineer in that the Associate is responsible for administrative supervision of the unit. This level differs from the Assistant Engineer in the greater responsibility, complexity of assignments, supervision of technical staff, and in the requirement of a license to practice as a Professional Engineer. (Factors determining complexity include dollar value of contract, location, phasing, project coordination requirements, time constraints, variety of design criteria, and project sensitivity.). Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

Reviews and consults on plans, specifications and estimates for electrical installations;

Prepares electrical design details;

Prepares plans, cost estimates and specifications for electrical facets of heating, air conditioning, and electrical elevator installations in buildings;

Makes field inspections of electrical installations for conformance to specifications and makes final inspections and capacity tests;

Computes and compares estimates of payments to contractors both partial and final, and prepares progress reports;

Surveys existing buildings to ascertain feasibility of proposed innovations;

Prepares technical reports and recommendations;

May seal and sign plans, working drawings and specifications as a licensed Professional Engineer as defined in Article 145 of the New York State Education Law;

Represents the County and Department of Public Works at various meetings.

REQUIRED KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES: Thorough knowledge of the principles and practices of electrical engineering; thorough knowledge of the engineering problems involved in the design, utilization and installation of electrical equipment; thorough knowledge of the practices of specification writing; thorough knowledge of construction estimates, including relative cost of materials related to useful life; good knowledge of the legal principles of and practices of contract preparation; good knowledge of computer assisted design, CAD; familiarity with the design and analysis of structures; skill in complex engineering computations; ability to lay out and supervise the work of professional and sub-professional engineers; ability to get along well with others and to deal effectively with contractors; accuracy; reliability; resourcefulness; sound professional judgment; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: Either: (a) a Bachelor's Degree* in electrical engineering and six years of field and office experience in electrical engineering, one of which must have been in the design of projects and one of which must have been in construction administration; or (b) a Bachelor's Degree* in electrical technology and seven years of field and office experience in electrical engineering including the specialized experience described in (a); or a Master's Degree* in electrical engineering and five years of field and office experience in electrical engineering, including the specialized experience described in (a); or (d) a satisfactory equivalent combination of training and experience as defined by the limits of (a), (b) and (c).

SPECIAL REQUIREMENT: Candidates must possess a license to practice as a Professional Engineer in the State of New York.

*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Education Department as a post-secondary, degree-granting institution.