

JUNIOR ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This is beginning level technical work in civil engineering, requiring the ability to apply principles of physics, mathematics, mechanics and materials to engineering problems. Work requires independent judgment in devising new methods and adapting standard procedures to meet unusual conditions. Work is performed under general supervision of higher level staff. Supervision is exercised over the work of subordinate employees. Performs related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative only)

Conducts surveys to establish or reestablish property lines and corners, to map developed areas, and to run location lines for roads;

Supervises construction work on assignment;

Keeps records of construction work performed and of changes in plans and specifications;

Performs basic engineering design and computation;

Checks design computations and plans of other staff for routine errors;

Supervises the work of engineering aides engaged on surveys and in construction inspection;

Supervises and instructs in the use of transits, levels and other surveying instruments;

Drafts topographical and cross section maps and charts;

Computes and estimates quantities of materials used for determining payments to contractors;

Performs a variety of related activities as required.

Typical Work Activities are intended only as illustrations of possible types of work that might be appropriately assigned to an incumbent of this title. Work activities that do not appear above are not excluded as appropriate work assignments, as long as they can be reasonably understood to be within the logical limits of the job.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL

CHARACTERISTICS: Good knowledge of the principles of civil engineering, physics and mathematics; good knowledge of construction and engineering practices; skill in the use of surveying and drafting instruments; ability to design moderately difficult engineering projects; ability to make difficult technical computations and compile engineering data; ability to read and interpret engineering drawings and specifications; ability to plan and supervise the work of others; ability to get along well with others; resourcefulness; accuracy; alertness; good judgment.

MINIMUM QUALIFICATIONS: Either

a) Bachelor's degree in civil engineering; or

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- b) Bachelor's degree in mathematics, physical and/or applied sciences, and one (1) year of experience in a field related to the utilization of such degree; or
- c) Associate's degree in mathematics, physical and/or applied sciences, and three (3) years of experience in a field related to the utilization of such degree; or
- d) Graduation from high school or possession of a comparable diploma and six (6) years of experience in civil engineering, architecture or related field; or
- e) An equivalent combination of training and experience as indicated in a), b), c) and d) above.

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