

Department: Highway
Classification: Competitive
Grade: Grade 6 M/C

SPEC DISK B1
DOCUMENT 16

SENIOR ENGINEERING TECHNICIAN

DISTINGUISHING FEATURES OF THE CLASS: The work involves responsibility for performing professional engineering tasks of a moderately difficult caliber involving exercise of engineering judgment on a variety of projects. The employee may be assisting other engineering staff on projects in the field or in the design of projects in the office, or in some special phase of engineering or public works activities both in the field and office. Assignments are received from the County Environmental Manager or County Highway Superintendent who outlines the scope of work to be performed, although the incumbent uses independent judgment in planning work details and making engineering decisions on routine problems. An incumbent gives advice, instruction and supervision on moderately difficult technical problems to construction foremen and crew members. The incumbent does related work as required.

TYPICAL WORK ACTIVITIES: (Illustrative only)

Makes surveys and field studies required to plan and schedule highway construction and maintenance projects;
Plots field notes and performs drafting as required;
Inspects highway construction and maintenance projects in progress to determine compliance with plans, specifications and overall program;
Aids in providing general supervision of highway construction supervisors and crew members engaged in a variety of public works activities;
Investigates drainage and other highway problems and makes recommendations for solution;
Aids in the preparation of specifications for purchase of highway materials and construction equipment;
Maintains engineering office records and aids in preparation of a variety of reports;
Assists in the design of highway sections for construction or reconstruction;
Aids in the supervision of field parties engaged in establishing alignments and grades for engineering or public works projects;
Assists in the preparation of specifications, cost estimates and time schedules of construction or related public works projects;
Assists in the designs of drainage and culvert sections for a variety of public works projects;
Assists in the preparation of plans, specifications, designs and drawings of proposed engineering and related public works projects;
Assists in the design and layout of right-of-way corridors and borders for road construction;
Assists in the supervision of the construction of new roads to insure horizontal and vertical layout correctness;
Assists in the inspection of materials and workmanship on construction projects;
Assists towns in the county with field surveys and basis design problems;
Assists in the collection of GPS and GIS data for inclusion in County Asset management database;
Prepares a variety of records and reports.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of the principles and practices of engineering and the sources of engineering information; good knowledge of modern methods and techniques as applied to highway and storm drainage design and construction; ability to organize, plan and lay out working details for engineering projects to technical employees; ability to obtain the cooperation and support of others; skill in conducting engineering research work and in writing technical reports of such studies; initiative and resourcefulness in the solution of engineering problems; mental alertness; physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS: Either:

- (a) Graduation from a regionally accredited or New York State registered college or university with a bachelor's degree in Civil Engineering or other related field and one year of experience in engineering, construction planning or a related technical field; or
- (b) Graduation from a regionally accredited or New York State registered college or university with an associate degree in Civil Engineering Technology or a related technical field and three years of experience in engineering, construction planning or related technical field; or
- (c) Graduation from high school or possession of a high school equivalency diploma and six years of experience assisting in engineering or construction planning or related technical field; or
- (d) An equivalent combination of training and experience as defined by the limits of (a), (b) and (c).

SPECIAL REQUIREMENT FOR ACCEPTANCE OF APPLICATIONS:

Candidates must be eligible for appropriate New York State driver's license.

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