

## JUNIOR CIVIL ENGINEER

DISTINGUISHING FEATURES OF THE CLASS: This position involves performance of professional engineering work at the entry level. The incumbent may be in charge of projects in the field, the design of projects in an office, or engaged in some special phase of engineering or public works activities and utilizes a personal computer as a tool for engineering and design.

### TYPICAL WORK ACTIVITIES:

- Prepares, reviews, and revises plans, specifications and design of engineering and public works projects, involving municipal installations, including airport facilities, libraries, office buildings, jails, highways, bridges, drainage systems, hospitals, nursing home facilities, parks and preserve systems;
- Participates in field survey, inspection and data taking for the purpose of collecting information to serve as the basis for the preparation of estimates, plans and specifications for engineering and public works projects;
- Assists in the instruction and development of subordinate employees in assigned department and in the operation and maintenance of equipment assigned to the department;
- Prepares engineering estimates, specifications and bidding documents for materials, equipment and construction projects for various municipal agencies and departments;
- Assists in coordinating the efforts and inspecting the work of private contractors whose services have been acquired for the performance of engineering projects;
- Provides engineering advice and expertise in the administration of state, federal and municipal programs such as locally administered Federal Aid Projects, tree replacement and cutting programs, municipal utility systems, etc.;
- Designs highway sections for construction or reconstruction;
- Participates in office operations of the Engineering Department for processing of permit applications, maintenance of equipment, maintenance of filing system for correspondence, technical reference materials, maps, and plans and operation of plotter;
- Design drainage and culvert sections for a variety of public works projects, including sanitary sewers, storm sewers and culverts;
- Supervises field parties engaged in establishing alignments and grades for engineering and public works projects;
- Makes field investigations to insure compliance with engineering specifications;
- Designs right of way corridors and borders for road and highway construction;
- Prepares technical drawings, maps and surveys utilizing computer-aided drafting and design software, word processing and other software;
- Prepares field surveys as electronic station operator, or assistant operator, in a survey team;
- Utilizes data to prepare surveys, site plans and drawings;
- Prepares a variety of records and reports related to the work;
- Performs a variety of related duties as required.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS: Good knowledge of the principles and practices of engineering and the sources of engineering data; good knowledge of modern engineering methods and techniques as applied to public works projects; ability to organize, plan and lay out working details for technical employees; ability to obtain the cooperation and support of others; ability to research and prepare various technical reports; good supervisory skills. Ability to use a computer work station as a tool for analysis and design engineering.

MINIMUM QUALIFICATIONS:

Graduation from a regionally accredited or New York State registered college or university with a Bachelor's Degree in Civil Engineering **and** four (4) years experience in engineering or design, permit administration, public works construction or project administration. Possession of a valid New York State Engineer-in-Training (EIT) Certificate may be substituted for up to three years of engineering experience.

SPECIAL REQUIREMENTS:

Candidates must possess a valid New York State driver's license at time of appointment.

NOTE: The essential functions of the job are determined by the department/jurisdiction where the job is located.