

Civil Engineer

Distinguishing Features of the Class

This is a professional and technical civil engineering position where work is performed in the field, office or drafting room in connection with the survey, design, construction, alterations, inspection and maintenance of public works improvements. Employees in this class are responsible for specific projects received from a supervising engineer and are afforded opportunity for the use of independent judgment in planning details of the work and in making technical decisions. General supervision is received during progress of work, and a final technical review is given by superiors. Direct supervision may be exercised over the work of junior engineers, engineering aides and labor supervisors. Does related work as required.

Examples of Work (illustrative only)

- Designs and develops layout of sewer systems and water supply systems, including maps, profiles, alignment, hydraulic table charts and curves; performs related computations.
- Designs structures or component parts of reinforced concrete, steel and timber, such as bridges, buildings, retaining walls and streets or highways.
- Prepares layout drawings of structures and streets under repair, improvement or construction.
- Prepares maps and plans for work done on a special assessment basis including prorating of cost against benefiting property according to an established procedure.
- Reduces survey field notes, balances traverses, plots maps and cross sections.
- May inspect contract work in street, water supply and sewer improvements.

Required Knowledge, Skills, Abilities and Personal Characteristics

- Good knowledge of the principles and practices of civil engineering.
- Good knowledge of modern engineering methods and techniques as related to construction and maintenance of public improvements. Good knowledge of mathematics through trigonometry and its application to field surveying and engineering computations.
- Working knowledge of construction specifications, plans, estimates, codes, rules and regulations relating to contractual public works construction.
- Working knowledge of surveying and survey computations.
- Skill in the use of engineering instruments and equipment.
- Ability to perform moderately difficult technical computations, to make estimates and tests, and to design moderately difficult engineering projects.
- Ability to make difficult and technical engineering drawings.
- Ability to perform complete field surveys.
- Ability to train and direct subordinates.
- Ability to establish and maintain effective working relations with others.
- Mechanical aptitude;

- Tact.
- Physical condition commensurate with the demands of the position.

Minimum Qualifications: Either

- (A) Graduation from a regionally accredited or New York State registered four (4) year college or university whose curriculum is accredited by the Engineer's Council for Professional Development with a Bachelor's Degree, higher level degree, in civil engineering; **OR**
- (B) Graduation from high school or possession of a high school equivalency diploma and eight (8) years of experience in the practice of civil engineering. (Study in Civil Engineering or Civil Technology at a regionally accredited college or university or one recognized by the New York State Education Department as following acceptable educational practices may be substituted on a year-for-year basis up to a maximum of four (4) years of the required eight (8) years of experience; **OR**
- (C) Any equivalent combination of training and experience as defined by the limits of A and B above.

License Requirement

Eligibility for a professional engineer's license with current registration in New York State, or current registration as a professional engineer in any state where licensure was obtained by means of written examination. Persons registered in another state, if appointed to this position, must file a completed licensure application with the New York State Education Department within three (3) months of appointment and must secure a New York State license within eighteen (18) months in order to continue employment.