

CIVIL ENGINEER I

10200

(Competitive)

DISTINGUISHING FEATURES OF THE CLASS

The work involves responsibility for performing civil engineering duties of moderate difficulty in the investigation, design and construction of public works projects. Under immediate supervision, an employee in this class receives assignments requiring the application of civil engineering skills and knowledge to minor civil engineering projects. As experience is gained, the employee receives assignments which require more independent action such as acting as survey party chief, making and checking engineering design computations, and inspecting less complex public works projects under construction. Supervision may be exercised over technical assistants in any phase of the work. Work is checked and reviewed frequently throughout its progress and completely at its conclusion by professional superiors. Does related work as required.

TYPICAL WORK ACTIVITIES

Makes and checks engineering drawings; computes quantities of wastes, fill, drainage, construction materials and other items.

Makes preliminary designs of drainage systems including catch basin location, pipe size and related structures; makes preliminary highway design of intersections and profiles for intersecting streets.

Makes a variety of preliminary estimates for engineering projects; receives records, charts and statistical information from the field; analyzes data and prepares detailed reports for professional engineering superiors.

Prepares right-of-way maps; determines property lines from field notices, deed descriptions, and subdivision maps; computes area parcels; writes parcel descriptions.

Serves as chief of field party in topographical, land survey or hydrographical surveys.

Acts as resident engineer on minor construction projects or assumes responsibility for a portion of large construction projects; inspects construction work to insure that county standards are being adhered to; makes written reports to superior as to progress of the project on a percentage completion basis.

Supervises the county participation in the state's snow and ice removal program; confers with town and village officials and local contractors; makes arrangements for use of equipment during snow emergencies; receives and approves statements of expense for use of equipment and forwards to state government for reimbursement.

FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS

Good knowledge of the principles and practices of civil engineering.

Good knowledge of civil engineering mathematics.

Good knowledge of the principles, techniques, and practices of topographical or hydrographical surveying or land surveying.

Good knowledge of the principles and practices and the instruments used in engineering drafting.

Working knowledge of the principals and practices of basic construction contract administration.

Working knowledge of the investigation, design and construction of public works facilities.

Skill in the use of engineering instruments and equipment.

Ability to make engineering and related mathematical computations.

Ability to take charge of the less difficult engineering or surveying projects in field or office and to obtain adherence to plans and specifications.

Ability to review and prepare written material such as correspondence and progress reports.

MINIMUM QUALIFICATIONS

Promotion:

A. One (1) year of permanent competitive class status in the title of Engineering Technician II; or,

B. Two (2) years of permanent competitive class status in the title of Engineering Aide III or Engineering Technician I.

Open Competitive:

A. Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a baccalaureate Degree in Civil Engineering; or,

B. Four (4) years of paraprofessional or professional level work experience, or its part-time equivalent, in civil engineering; or,

C. An equivalent combination of training and experience as defined by the limits of A and B.

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