

## **JUNIOR ENGINEER**

Code No.: 3-14-013  
COMPETITIVE

**DISTINGUISHING FEATURES OF THE CLASS:** This is an engineering position responsible for participating in the design, construction, and inspection of a variety of civil engineering projects. Duties involve assisting higher-level engineers and other staff while performing simple design work independently. The employee reports directly to, and works under the general supervision of an Engineer or other higher-level staff member. Does related work as required.

**TYPICAL WORK ACTIVITIES:** (All need not be performed in a given position. Other related activities may be performed although not listed.)

Drafts computer-aided preliminary designs for highway or bridge construction, drainage structures or water or sanitary and/or sewage systems;

Conducts field surveys at construction sites, for highway, water, drainage, and sanitary and/or sewage system projects, or for signal installation;

Performs and checks computations and plans;

Gathers and records engineering data;

Inspects construction sites, drainage systems, sanitary and/or sewer systems and installations, intersections, or landfill sites;

Maintains map files, statistical reports, drawings, computerized files, charts, plans, and specifications;

Calculates capacities of sewer and drainage areas, alignments for proposed highways, and rights of way;

Attends informational meetings and conferences;

Writes activity reports, progress and inspection reports, and survey field notes;

Computes estimates of cost and quantity requirements for bids;

Interprets engineering and survey maps;

Confers with property owners to resolve complaints, obtain easements, and prevent problems;

Prepares reports and completes forms for reporting to state and federal agencies;

Performs stormwater inspections and creates reports;

Performs pond and outfall inspections per Municipal Separate Storm Sewer Systems (MS4).

**FULL PERFORMANCE KNOWLEDGES, SKILLS, ABILITIES AND PERSONAL**

**CHARACTERISTICS:** Working knowledge of the principles of civil engineering; working knowledge of mathematical functions; working knowledge of contemporary computer applications relevant to the principals and practice of civil engineering, including computer aided drafting, survey data collection, spread sheets and word processing; working knowledge of fundamental techniques of highway and bridge construction, installation of sanitary and storm sewers or sewers or signal systems; working knowledge of techniques of surveying and drafting; ability to apply the techniques of civil engineering; ability to make computations and estimates of cost; ability to maintain records and files of maps and drawings; ability to write reports; ability to read and interpret maps and drawings; ability to communicate orally and in writing; good judgment; physical condition commensurate with the demands of the position.

**MINIMUM QUALIFICATIONS:** Graduation from high school or possession of an equivalency diploma plus, EITHER:

- (A) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's degree in Civil Engineering, Sanitary Engineering, Environmental Engineering or a closely related field; OR
- (B) Graduation from a regionally accredited or New York State registered college or university with a Bachelor's degree in Civil Engineering Technology, Construction Engineering Technology, Engineering Technology or a closely related field plus one (1) year paid full-time or its part-time equivalent experience in construction or design work, or surveying; OR,
- (C) Graduation from a regionally accredited or New York State registered college or university with an Associate's degree in Civil Engineering Technology, Construction Engineering Technology, Engineering Technology or a closely related field plus three (3) years paid full-time or its part-time equivalent experience in construction or design work, or surveying; OR,
- (D) An equivalent combination of education and experience as defined by the limits of (A), ~~and~~ (B), and (C) above.

**SPECIAL REQUIREMENTS:** If you are appointed, you will be required to have a valid license to operate a motor vehicle in New York State or otherwise demonstrate your capacity to meet the transportation needs of the job.

Monroe County Civil Service Commission

**ADOPTED:** August 10, 1977

**Reviewed:** 10/28/86

**REVISED:** March 10, 1988

**REVISED:** July 10, 1997

**REVISED:** March 8, 2018

**REVISED:** May 7, 2020