

## **ENGINEER**

**DISTINGUISHING FEATURES OF THE CLASS:** The Engineer performs civil engineering work involving the full range of professional activity in the planning, design, inspection, construction supervision, maintenance and technical review and evaluation of: water supply, treatment, storage and distribution systems; wastewater pumping, collection systems; and storm water management. Incumbent may also be assigned to review consultant and contractor plans and estimates, or serve as design and/or construction phase project managers. The incumbent will perform civil engineering activities requiring a high degree of judgment, imagination and resourcefulness in the planning, design, construction, maintenance and evaluation of complex projects. The Engineer may supervise subordinate technicians and, when assigned to design functions or construction supervision, may supervise a large group of subordinate engineers, technicians and seasonal construction inspectors. This position works under general direction from the Commissioner/Deputy Commissioner with wide leeway for independent judgment.

### **TYPICAL WORK ACTIVITIES:** (Illustrative Only)

- Oversees, prepares and develops project feasibility and scoping studies, design criteria, environmental studies, water system, sewer system and hydrologic modeling, water and/or sewer system capacity analysis and performs designs for water and sewer system improvements, including the economic analyses necessary to select the most cost effective system improvements;
- Assists in the development of an Asset Management system;
- Manages consulting firms performing services for Department projects including defining the scope of consultant work, directing and monitoring the consultant's work to ensure adherence to budget and schedule, coordinating the activities of the consultant with other Department staff, coordinating and clearing with the Commissioner or Deputy Commissioner requests for changes in the scope of the agreements and/or requests for supplemental agreements, and preparing performance evaluations of each consultant;
- As Department Project Manager, in charge for administration of construction contracts, oversees contractor construction activities to ensure conformity to contract requirements, including the quality of construction and adherence to predetermined schedules;
- Performs inspections and investigations in accordance with Department policies and procedures, and recommend appropriate actions based on findings;
- Reviews contract document submittals for conformance with Department policies and standards;
- Participates in the consultant selection process;
- Develops Requests for Proposals;
- Performs reviews of proposed new development and site plan applications for water, sewer and stormwater impacts;

- Attends, participates in and conducts public meetings;
- Assists in development and review of Preventive maintenance programs;
- Serves as Engineering representative to the Commissioner or Deputy Commissioner by conducting special investigations and research about engineering problems, answering questions and complaints, evaluating and summarizing reports, making recommendations about project approvals, payments and property acquisitions, and representing the Department on committees and with other organizations and agencies;
- Supervises and coordinates the work of subordinate engineers, technicians and administrative support staff;
- Performs related work as required.

**FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:**

Thorough knowledge of the Department's design standards and standard specifications;  
 Thorough knowledge of the principles, practices, theories and procedures of sanitary engineering;

Thorough knowledge of applicable codes, laws, rules, regulations and policies governing and impacting on water and sewer engineering design and construction;

Good knowledge of applicable GIS software;

Ability to prepare, in final form, complex plans, designs, specifications, contacts and narrative technical material;

Ability to plan, schedule, coordinate and evaluate design, construction and maintenance programs;

Ability to establish cooperative relationships with subordinates, public officials, other agency staff and representatives of contractors, consultants and public interest groups;

Ability to evaluate complicated proposals and designs and select the most practical plan of work accomplishment;

Ability to establish project and work priorities;

Ability to evaluate water and sewer infrastructure and determine maintenance and rehabilitation needs.

**MINIMUM QUALIFICATIONS:**

Graduation from a regionally accredited college or university or one accredited by the New York State Board of Regents to grant degrees with a Bachelor's Degree in Engineering (Civil, Sanitary or Environmental) and two (2) years of engineering experience in water and/or wastewater engineering.

**SPECIAL NOTE:**

- Possession of a New York State Professional Engineer's license with current registration is required at time of appointment and for the duration of employment.

- A valid NYS Driver's License is required at the time of appointment and for the duration of employment.