

ENGINEER III

DISTINGUISHING FEATURES OF THE CLASS: This is a professional engineering position requiring performance of technical, administrative, management and supervisory functions within the Engineering Division. Under the general direction of the Deputy Commissioner of Public Works - Engineering, the Engineer III works independently on projects as well as supervises, coordinates, reviews and approves work of lower level engineering staff and consultants. The position differs from that of the Engineer II in that it is a professional senior-level position requiring independent decision-making with less direct supervision, and greater actual project design, development and greater administrative responsibilities. Performance at this level requires possession of a New York State Professional Engineers License, and does related work as required. This position differs from that of Engineer II in that in addition to project design and management, the Engineer III is expected to provide more departmental administrative support as well as support and guidance to junior level staff. Does related work as required.

TYPICAL WORK ACTIVITIES:

Performs all Engineer II responsibilities but at a higher, more responsible and independent level;

Plans and coordinates major projects within all DPW divisions including Highways, Building & Grounds, Parks, and Solid Waste;

Prepares designs and specifications for compliance with laws, codes, regulations and department standards for major road, culvert, bridge, building and facility projects, including environmental permitting and compliance;

Evaluates and negotiates both contractor's and consultant's proposals, negotiates revisions and participates in obtaining final contract approval / agreements;

Supervises the inspection of construction for conformance with contract provisions and supervises inspections for physical and operational condition of existing facilities;

Interprets for both contractors and subordinate staff contract specifications, construction standards and resolves differences in interpretation;

Monitors consultants work by reviewing plans and reports, evaluating compliance with policy standards, procedures, schedules and contracts, coordinating consultants work with the department programs and standards, and preparing periodic reports;

Directs and advises subordinate staff on design of the most complex engineering projects including roads, bridges, culverts, and facilities, and reviews these designs for compliance with laws, codes, regulations and department standards;

Conducts studies to determine the best methods and materials to use in an assigned project;

Represents the County Public Works Department at contractor, vendor and public meetings;

Inspects construction projects for compliance with specifications;

Directs and advises subordinate staff in maintenance of records, project data and computer systems.

Provides administrative and management assistance to the Deputy Commissioner with the following tasks:

- (1) Assists with development, evaluation, and tracking of department programs, policy, and budgets;

(2)Assists with departmental and project related staffing needs and resource allocation;

(3)Assists with capital improvement program planning and pursuing outside project funding sources.

Trains and mentors subordinate staff at all levels involved in engineering and other departmental projects.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Comprehensive knowledge of the principles and practices of engineering;
Comprehensive knowledge of construction procedures, methods, terminology and materials;

Comprehensive knowledge of the tools, terminology and materials used in the construction of road, bridges, buildings and facilities;

Comprehensive knowledge of applicable codes, laws, rules and regulations governing engineering designs and construction procedures;

Thorough knowledge of the principles of supervision, administration and contract management;

Thorough knowledge and exhibited mastery of basic computer applications such as Word, Excel, Access, Power Point, etc. Knowledge of hydraulic applications a plus;

Good knowledge of land acquisition procedures, including right-of-ways and condemnations;

Ability to lead, direct and review the work of others;

Ability to train, supervise and mentor lower level engineering staff;

Ability to direct preparation of plans, complex designs, specifications and narrative reports;

Ability to coordinate engineering projects, including resource and manpower allocation;

Ability to analyze design and construction programs for effectiveness;

Ability to establish cooperative relationships with engineering staff, consultants, contractors, vendors, public officials and the general public;

Strong verbal and written communication skills, in public and private situations;

Strong organizational skills;

Accuracy and attention to detail;

MINIMUM QUALIFICATIONS:

Possession of a Professional Engineer license, AND one of the following:

A) Graduation from a New York State registered or regionally ABET accredited college or university with a Master's Degree in engineering or engineering technology (*specialties as described below), AND four (4) years** experience performing the following:

- 1) Engineering design of highways, bridges, culverts and/or facilities using AutoCAD or other engineering software; or
- 2) Field inspection of highways, culverts, bridges, and/or facilities;

- 3) Technical writing of engineering reports and project bid documents / technical specifications; OR
- B) Graduation from a New York State registered or regionally ABET accredited college or university with a Bachelor's Degree in engineering or engineering technology (*specialties as described below), AND six (6) years** experience as defined above; OR
- C) Graduation from a New York State registered or regionally ABET accredited college or university with an Associate's Degree in engineering or engineering technology (*specialties as described below) AND eight (8) years** experience as defined above; OR
- D) Possession of a Professional Engineer license, AND an equivalent combination of training and experience as defined by the limits of A), B), and C) above.

* Acceptable areas of engineering education include Civil Engineering, Structural Engineering, Environmental Engineering, Mechanical Engineering, Architectural Engineering, or a closely related field. Degrees in the following fields are not acceptable: Chemical Engineering, Industrial Engineering, Public Health Engineering or Computer Technology

** Three years of which must have included supervisory or project leader responsibilities of persons performing professional activities.

SPECIAL REQUIREMENTS AT TIME OF APPOINTMENT:

- 1) Possession of the appropriate level of Motor Vehicle Operator's License.

SPECIAL REQUIREMENT DURING PROBATIONARY PERIOD:

- 1) Licensure by the State of New York as a Professional Engineer.

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Competitive