

ENGINEERING SPECIALIST (HIGHWAY)

DISTINGUISHING FEATURES OF THE CLASS: This is technical, sub-professional, engineering work of a moderately complex nature involving responsibility for overseeing and participating in field survey inspections and drafting and engineering computation projects. The work differs from that of a Principal Engineering Technician in the difficulty of assignments, specialized knowledge and independence of judgment exercised. The work is performed under the general supervision of a Highway administrator and supervision is provided to technical staff. Does related work as required.

TYPICAL WORK ACTIVITIES:

Coordinates field and survey work requests from units within the Department of Highways (e.g. Engineering, Drainage, Maintenance, Construction);
Inspects construction and maintenance projects including materials supplied by each project;
Provides technical support for CAD, engineering, surveying, mapping and other types of software, and ensures compliance with CAD standards;
Oversees drafting work and engineering computations;
Oversees conversion of paper-based engineering and survey records to digital databases and/or related software;
Obtains quotes and makes effective recommendations in the purchasing of survey and engineering equipment (e.g. plotters, scanners, printers, etc.);
Acts as liaison with MIS to resolve computer-hardware and software support issues;
Supervises the work activities of technical engineering staff;
Gathers information and data for inclusion in the Geographic Information System (GIS) utilizing scanning, digitization, survey methods and other methods, as required;
Reviews proposals for work associated with survey, construction, aerial photography and other mapping issues;
Coordinates various projects such as drainage, parking lots, park entrances, trails and other projects as needed;
Completes designs for small-medium size projects (e.g. drainage, parking logs, park entrances, trails).

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

Thorough knowledge of the principles, practices and terminology of land surveying; thorough knowledge of construction and maintenance methods and materials for highways, bridges and drainage structures; good knowledge of drafting techniques; good knowledge of engineering mathematics; ability to understand complex technical written and oral instructions; ability to supervise the work of others; ability to communicate both orally and in writing; ability to use specialized software for survey and engineer work (e.g. Autodesk Land Development Desktop, CAD, GIS)*.

(over)

MINIMUM QUALIFICATIONS:

An Associate's degree or the completion of two (2) years (minimum of sixty (60) credits) of a college program in Civil Engineering, Surveying, Forestry, Landscaping, Architectural Technology, or comparable curriculum and five (5) years of technical experience in the field of civil engineering.

NOTES:

1. A Bachelor's degree in Civil Engineering, Architecture, Landscaping or Architectural Technology, or comparable curriculum, may be substituted for four (4) years of the required experience.
2. Additional years of the required experience may be substituted for college on a year-for-year basis for up to two (2) years.

PROMOTION: Two (2) years of permanent status as a Principal Engineering Technician.

SPECIAL REQUIREMENT: Possession of a valid New York State driver's license appropriate to the kind and size of vehicle to be driven.

*To be demonstrated during the probationary period.