

ENGINEERING SPECIALIST (HIGHWAY)

DISTINGUISHING FEATURES OF THE CLASS: This is specialized technical engineering work involving the responsibility for overseeing and participating in field surveys, inspections, drafting and engineering calculation projects. The work is performed under the general supervision of a higher-level administrator and supervision is provided to technical staff. Does related work as required.

TYPICAL WORK ACTIVITIES:

Provides technical support for Computer Aided Dispatch (CAD), engineering, surveying, mapping and other types of software and ensures compliance with (CAD) standards;
Supervises staff involved in engineering processes;
Oversees drafting work and engineering computations;
Manages the transition of paper-based engineering and survey records into digital databases and associated software systems;
Obtains quotes and provides recommendations in the purchasing of survey and engineering equipment (e.g., plotters, scanners, printers, etc.);
Acts as liaison with ITS department to resolve computer-hardware and software support issues;
Collects information and data for integration into Geographic Information System (GIS) using methods such as scanning, digitization, surveying and mapping;
Evaluates proposals related to surveying, construction, aerial photography and mapping;
Oversees and manages a variety of projects, including drainage systems, parking lots, park entrances, trails and other related initiatives;
Completes designs for small-medium size projects (e.g., drainage, parking lots, park entrances, trails, etc.).

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., AutodeskCivil 3D, Leica Cyclone, Leica Infinity, Leica CloudWorx, ArcGIS, DJI Terra, Pix4D Survey, Computer-Aided Dispatch (CAD))*.

MINIMUM QUALIFICATIONS:

1. An Associate's degree in Civil Engineering, Surveying, Forestry, Landscaping, Architectural Technology, or comparable degree and five (5) years of technical experience in civil engineering or land surveying, or
2. A Bachelor's degree or higher in Civil Engineering, Architecture, Landscaping or Architectural Technology, or comparable degree and three (3) years of technical experience in civil engineering or land surveying.

NOTE: Graduation from high school or possession of an equivalency diploma plus additional years of the required work experience may be substituted for the college degree on a year-for-year basis.

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

(over)

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.