

ENGINEERING AIDE

DISTINGUISHING FEATURES OF THE CLASS:

This is an entry level position in the Department of Public Works. Incumbents in this class perform elementary technical civil engineering duties involved in highway related projects. The work is carried out in accordance with established procedures and involves duties such as assisting in a survey party, performing routine computations, gathering routine field data, inspecting construction work and performing computer-aided drafting. The class differs from that of Senior Engineering Aide in its lesser degrees of independence and responsibilities. As experience is gained in the position, additional technical engineering, surveying, construction inspection and computer-aided drafting work responsibilities may be assigned. Work is performed under the direct supervision of a higher level employee, with supervision becoming more general as the employee progresses in technical skill and knowledge. Supervision is not normally a function of the class.

TYPICAL WORK ACTIVITIES:

The following is indicative of the level and types of activities performed by incumbents in this title. It is not meant to be all inclusive and does not preclude a supervisor from assigning activities not listed which could reasonably be expected to be performed by an employee in this title.

1. Operates instruments such as electronic total station, GPS survey station and level and equipment such as level rod, laser prism target, GPS rover backpack, rod, measuring tape and hand level on a survey party;
2. Transfers previously drafted drawings onto permanent or reproducible media, using computer-aided and hand drafting techniques;
3. Performs and checks calculations in connection with the reduction and plotting of field notes of surveys;
4. Assists in gathering field data relative to highway traffic conditions, bridge conditions, and work permit applications;
5. Assists in the tabulation of data for engineering reports;
6. Operates general office and engineering related printing and reproduction machines;
7. Maintains files of engineering specifications and road maps;
8. May assist in the uploading of collected field data for use in computer-aided design and drafting;
9. May maintain a stock room of related supplies and equipment, keeping associated records and accounts, and working with vendors to obtain prices, expedite orders and resolve problems;
10. May assist with, and based on experience may independently perform, limited construction inspection activities, including site inspections, performance of mathematical and engineering calculations, and maintenance of related records.

FULL PERFORMANCE KNOWLEDGE, SKILL AND ABILITIES:

Good knowledge of algebra, trigonometry and geometry applicable to civil engineering work including surveying;

Working knowledge of the principles and practices of civil engineering including field survey work;

Working knowledge of the principles and practices of drafting;

Working knowledge of the use and care of engineering instruments;

Ability to use mathematical tables and make trigonometric calculations;

Ability to read and interpret engineering maps, blueprints, and sketches;

Ability to operate a personal computer and basic peripheral equipment, including familiarity with basic computer program applications (e.g., word processing, spreadsheets, database management);

Ability to learn two-dimensional computer-aided drafting;

Ability to keep simple inventory records;

ENGINEERING AIDE (Cont'd)

FULL PERFORMANCE KNOWLEDGE, SKILL AND ABILITIES: (Cont'd)

Ability to learn standard governmental account keeping procedures;
Ability to understand written and oral instructions and specifications;
Personal characteristics necessary to perform the duties of the position;
Physical condition commensurate with the demands of the position.

MINIMUM QUALIFICATIONS:

Graduation from high school or possession of a high school equivalency diploma AND:

- EITHER: (A) Graduation from a regionally accredited or New York State registered college or university with an Associate's degree in engineering technology, engineering science, mathematics, physics, or a closely related field;
- OR: (B) Completion of progressively advanced coursework in mathematics through the level of trigonometry, and two (2) years of work experience in the engineering or construction fields, including the application and/or use of engineering or surveying principles, techniques or tools;
- OR: (C) Current Level II Certification in Highway Construction, Highway Design or Highway Surveys from the National Institution for Certification in Engineering Technologies;
- OR: (D) An equivalent combination of training and experience as described in (A) and (B) above.

SPECIAL REQUIREMENT:

A department head may require the possession of a valid New York State Operator's license at time of appointment.

EG0301

ADOPTED: 04/10/84

REVISED: 01/01/78

10/02/78

06/03/93

01/01/97

02/03/97

08/25/03

11/03/06

10/10/07