

**ILLINOIS DEPARTMENT OF TRANSPORTATION
CLASSIFICATION SPECIFICATION**

CIVIL ENGINEER TRAINEE (PW110)

Distinguishing Features of Work

Under immediate supervision, employee performs moderately difficult technical and skilled manual work of a civil engineering nature, in connection with the investigation, location, design, construction and maintenance of engineering projects, usually limited in scope and complexity.

Detailed instructions may be given but there is latitude for an independent performance of a variety of engineering duties which may entail limited supervision of the work of Engineering Technicians.

This is a training position.

Illustrative Examples of Work

- Acts as instrumentperson or notekeeper on surveys; assists in supervising the party in establishing lines, taking cross sections, running drainage areas and traverses, and making topographic, hydrographic, cadastral and construction surveys.
- Assists in the analysis and review of reports for flood control, river and harbor improvements and other facets of water resource development in the conduct of special engineering investigation; makes engineering analyses by utilization of economic, hydrologic, meteorologic data, and hydraulic formula.
- Inspects construction of grading surfacing and drainage structure improvements for satisfactory workmanship and adherence to plans and specifications; assists in establishing line and grade for this work, operating instruments, keeps notes and makes computations; prepares drawing or sketches and estimate of maintenance work during the training period.
- Makes field and laboratory tests and obtains representative samples of construction materials for testing laboratory; supervises or assists in supervising a squad in testing and analyzing soils; accepts or rejects materials inspected in field on basis of test results.
- Acts as proportioning engineer on concrete and bituminous construction projects.
- Reduces survey notes, plots cross section, details plans and right-of-way plats, computes areas and quantities, checks computations of others, and performs all drafting necessary for construction plans for highway and waterway improvements.
- Makes field studies of vehicle usage, complex traffic movements, traffic distribution; codes, tabulates, and analyzes data secured in the field; acts as chief of road inventory party.
- Performs other duties as required.

Desirable Requirements

Education

Four year degree from an accredited college in engineering or knowledge, skill and mental development equivalent to completion of four years of college in engineering.

Significant Knowledge, Skills and Abilities

- Working knowledge of the routine practices of civil engineering.
- Working knowledge of mathematics as applied to engineering endeavors.
- Basic skill in the use of engineering field and office instruments.
- Ability to perform third degree or higher order survey work and to make relatively difficult technical computations and estimates.

(Revised 11/96)