

CLASS SPECIFICATION
County of Fairfax, Virginia

CLASS CODE: 5104

TITLE: ENGINEER I

GRADE: S-21

DEFINITION:

Under close and instructional supervision, performs work of a training nature in the development of engineering work skills; work assignments are of gradually increasing complexity and require application of accepted engineering knowledge and techniques; and performs related work as required.

DISTINGUISHING CHARACTERISTICS OF THE CLASS:

Positions allocated to the Engineer I class serve in a trainee (i.e., underfill) capacity with noncompetitive promotional progression to the developmental Engineer II class level after one year of trainee experience. The Engineer I is distinguished from the Engineer II in that the Engineer I is entry-level engineering work and the Engineer II class is developmental engineering work where the incumbent begins to apply basic engineering principles and techniques.

ILLUSTRATIVE DUTIES:

Depending on the functional area of assignment:

Performs entry level work and develops skills in design or construction;

Performs entry level work and develops skills in the reviewing of subdivision and site plans;

Acquires an understanding of sequencing engineering tasks;

Collects and compiles research data relating to land use;

Monitors environmental controls;

Meets with customers and the public to provide information and/or explain building plans;

Tabulates records and statistical data;

Studies County ordinances pertaining to solid waste management, urban development, site plans and subdivision developments;

Reviews and approves shop drawings and third party quality control inspection reports submitted pursuant to "Special Inspections Requirements" under the Virginia Uniform Statewide Building Code and the Fairfax County Special Inspections Program;

Conducts field inspections of commercial construction projects to verify compliance with associated building code requirements of the Virginia Uniform Statewide Building Code;

Studies state and federal laws and regulations regarding solid waste management;

Reviews and approves plans in accordance with the Virginia Uniform Statewide Building Code;

Meets with customers to explain building plan deficiencies;

Works with other engineers, engineering para-professionals and administrative staff.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES:

Depending on the functional area of assignment:

Knowledge of the principles, theory and practice of civil, architectural, environmental engineering or urban planning;

Knowledge of computer applications and software (such as CAD) that is associated with the preparation of plans and engineering computations;

Knowledge of topographic and construction surveying;

Knowledge of common methods and equipment used in engineering construction and of inspection methods used in reviewing such work;

Knowledge of real property descriptions;

Knowledge of environmental testing methods;

Knowledge of state and federal laws and regulations regarding solid waste management;

Knowledge of Virginia Uniform Statewide Building Code and the codes and ordinances which apply to building construction in Fairfax County;

Ability to work in a team environment;

Ability to write reports, specifications, and prepare contract documents;

Ability to conduct public meetings and make presentations;

Ability to prepare technical reports and to present findings in a clear and concise format;

Ability to make accurate automated design drawings and maps;

Ability to make accurate computations and neat and accurate field notes;

Ability to collect and compile research data.

EMPLOYMENT STANDARDS:

Any combination of education, training and experience equivalent to:

Graduation from a four year college or university accredited by the Accreditation Board for Engineering and Technologies with a bachelor's degree in the appropriate engineering or architectural field.

Upon the successful completion of a one year training period, Engineer I employees are eligible for a non-competitive appointment to Engineer II within the engineering discipline for which they have been trained.

CERTIFICATES AND LICENSES REQUIRED:

A valid driver's license may be required for some positions.

NECESSARY SPECIAL REQUIREMENTS:

Possession of one Plan Review certification issued by the Virginia Department of Housing and Community Development in either residential building, commercial building, plumbing, electrical or mechanical is required within 12 months of appointment for certain positions identified to the Department of Human Resources.

Possession of a Virginia Department of Housing and Community Development certification as Commercial Building Inspector and as Fire Protection Inspector is required within 18 months of appointment for certain positions as identified to the Department of Human Resources.

REGRADED: August 23, 2010

REVISED: April 28, 2007