

**CLASS SPECIFICATION**  
**County of Fairfax, Virginia**

**CLASS CODE:** 5102

**TITLE:** ENGINEER III

**GRADE:** S-27

**DEFINITION:**

Under general supervision, independently performs the full performance level of engineering and project management work; responsible for cost-effective design, efficient operation, project management, design and construction contract administration, OR oversees operations, environmental monitoring or construction at waste management facilities; and performs other related duties as required.

**DISTINGUISHING CHARACTERISTICS OF THE CLASS:**

The Engineer III is distinguished from the Engineer IV in that the Engineer III performs full performance level engineering and project management work; whereas the Engineer IV plans, coordinates and supervises the work of a small staff with complex engineering work, OR a large staff with more routine engineering work AND/OR performs advanced specialized engineering work.

The Engineer III is distinguished from the Engineer II in that the Engineer III performs full performance level engineering and project management work, whereas the Engineer II performs developmental work and begins to apply basic engineering principles.

**ILLUSTRATIVE DUTIES:**

Depending on the functional area of assignment:

Performs all the duties of the Engineer II and as applicable;

Prepares designs using CAD software, prepares cost estimates, and performs construction contract administration for sanitary sewers, stormwater facilities, solid waste facilities, transportation facilities, and other county projects with defined objectives, priorities, budgets, and deadlines;

Interacts with external engineering, environmental and construction contractors, ensuring the best use of county resources and timely completion of projects;

Solves complex project design or construction challenges such as unsuitability of conventional materials or methods, minimizing disruption of operations during phased construction, minimizing disruption to the public;

Prepares project cost estimates and schedules for various project types;

Mentors and leads less experienced staff in day-to-day business or for special projects;

Reviews plans submitted by Architectural and Engineering (A&E) firms for County projects to determine if they meet design requirements, and for cost and compatibility with County standards, guidelines and operational needs and verifies invoices for payment;

Provides project quality control for consultant designs and construction documents;

Reviews and approves subdivision and site plans and associated plans/studies;

Reviews operations for regulatory/permit compliance;

Reviews and approves (or rejects with explanation) 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;

Reviews hydrological studies based on land use and topography for the delineation of flood plains;  
Coordinates and resolves utility conflicts;  
Manages multi-discipline projects of ranging complexity, type and scope;  
Maintains project files and documentation;  
Conducts final inspections of projects installed by contractors, developers or individuals;  
Provides direction and oversight of environmental monitoring;  
Leads in design project feasibility studies and develops design criteria for engineering consultants;  
Conducts field inspections of commercial construction projects to verify compliance with associated building code requirements of the Virginia Uniform Statewide Building Code;  
Reviews and approves plans in accordance with the Virginia Uniform Statewide Building Code;  
Meets with customers to explain building plan deficiencies and reviews and processes subdivision plats, reviewing all revisions concerning access, street location, site distance, and traffic safety;  
Leads design and construction meetings, manages design and construction contracts; develops project scopes, budgets and schedules;  
May serve as a Team Leader;  
Conducts preliminary meetings with design professionals to discuss code issues related to their projects;  
Prepares and presents reports to boards and commissions;  
Recommends revisions in the County Code and related documents;  
May be required to sign/seal work performed as a Professional Engineer or Registered Architect;  
May administer the section in the absence of the supervisor;  
Attends meetings and conferences;  
Prepares reports, studies, design analysis and evaluations, contracts, and bid documents.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Depending on the functional area of assignment:  
Knowledge of the principles, theory and practice of civil, architectural, and 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 Virginia Uniform Statewide Building Code and the codes and ordinances which apply to building construction in Fairfax County;  
Knowledge of the principles, practices and techniques relating to construction project management and contract administration;  
Ability to plan and coordinate the work of team(s) and/or subordinates;  
Ability to review construction documents, designs and proposals for costs, design requirements and compatibility with County standards, guides and operational needs;  
Ability to prepare reports, specifications, and contract documents;

Ability to meet and interact with the public;  
Ability to prepare technical reports and to present findings in a clear and concise format;  
Ability to make accurate CAD drawings and GIS maps;  
Ability to perform accurate computations and prepare neat and accurate field notes;  
Ability to collect and compile research data;  
Ability to use a computer for word processing, preparation of spreadsheets, e-mail, and presentation materials.

**EMPLOYMENT STANDARDS:**

Any combination of education, training and experience equivalent to:  
Graduation from a four-year college or university accredited by the Accreditation Board of Engineering and Technologies with a bachelor's degree in the appropriate engineering or architectural field; PLUS  
Four years of progressively responsible professional experience in the appropriate engineering field.

**CERTIFICATES AND LICENSES REQUIRED:**

A valid driver's license may be required for some positions as identified to the Department of Human Resources.

**NECESSARY SPECIAL REQUIREMENTS:**

Possession of a valid Virginia Erosion and Sediment Control Combined Administrator Certification, Sediment Control Reviewer Certification, and/or Sediment Control Inspector Certification, or the ability to obtain same within 18 months of appointment, is required for certain positions as identified to the Department of Human Resources.

Possession of a valid Virginia Professional Engineer or Architect license for certain positions as identified to the Department of Human Resources. An individual who possesses a valid Professional Engineer or Architect license in another state will be granted a temporary exemption to this requirement pending the Board for Architects, Professional Engineers, Land Surveyors, Certified Interior Designers & Landscape Architects decision regarding that individual's application for reciprocity.

Possession of a valid Virginia Waste Management Facility Operator Class II License, or the ability to obtain one within one year of appointment is required for certain positions as 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.

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

Possession of a valid Storm Water Management Project Inspector and/or Storm Water Management Plan Reviewer certification within 18 months of appointment is required for certain positions as identified to the Department of Human Resources.

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