

CLASS SPECIFICATION FOR
Senior Engineer

GENERAL STATEMENT OF DUTIES: Performs difficult and advanced engineering work in the field and in the office; does related work as required.

DISTINGUISHING FEATURES OF THE CLASS: This work involves the application of professional engineering knowledge and skills in the design, inspection, construction and maintenance of utility, road, structural and other related engineering projects, energy management program or in-depth knowledge of area assigned. Some positions may require knowledge to assure compliance with the provisions of the Virginia Uniform Statewide Building Code and all related County ordinances. Supervision may be exercised over professional and paraprofessional engineering personnel. This class works closely with County key officials and outside officials, performing work independently, with wide latitude for planning and making technical judgments. General supervision and policy guidance are received from a senior building official, assistant agency head or agency head.

EXAMPLES OF WORK (illustrative only):

- Plans, organizes, and designs drainage facilities, storm sewers, sanitary sewers, streets and water main extensions;
- Provides transportation planning/engineering support;
- Researches and develops improved transportation projects and other mass transportation programs;
- Makes calculations as to line and grade, strength, and quantities of materials;
- Acts as resident engineer on construction projects, supervising the work of other professional engineers, passing on various phases of the projects as completed;
- Determines payments awarded contractors;
- Keeps official project records and reports;
- Prepares and presents reports to department head, County Manager, Board of Supervisors, and other public groups;
- Trains subordinate engineers and engineering aides;
- Negotiates and prepares utility contracts with subdivision developers, attorneys, realtors, and property owners;
- May inspect subdivisions, commercial buildings and apartment complexes for compliance with approved plans;
- Regularly audits commercial and/or residential plan reviews performed by staff to evaluate the consistency, accuracy, and completeness of reviews;
- Inspects commercial and residential construction projects to evaluate whether staff reviews are facilitating compliance with the VUSBC;
- Examines plans and checks design of new buildings and other structures to determine compliance with the building code, other County ordinances, and sound engineering practices;
- Establish and maintain program for energy accounting in facilities to identify high usage facilities and areas;
- Conduct energy audits to identify target projects and create baseline data to measure energy savings;
- Implement energy optimization projects and manager solicitation of contracts for the design and implementation of energy optimization projects;
- Identify, develop, and administer financial sources for energy saving initiatives;
- Attends public hearings, presents information, and answers questions;
- May prepare code revisions for submission to the building code review board;
- Prepares special and periodic reports;
- Performs related work as assigned.

REQUIRED KNOWLEDGE, SKILLS AND ABILITIES: Extensive knowledge of the principles and practices of engineering as they relate to the position assigned; extensive knowledge of the legal, administrative, and technical aspects of applicable Virginia State Code and referenced standards; ability to plan, lay out, and direct the work of subordinates; ability to plan projects and to prepare related designs, estimates, and specifications or ability to design and review plans of new structures; ability to prepare and/or evaluate building, electrical, mechanical, fire protection, plumbing construction, transportation and/or energy generation and rate structure documents; ability to use various instruments to measure and analyze usage data; ability to effectively supervise the work of professional and paraprofessional personnel; ability to organize technical material in good report form; considerable skill in the use of a personal computer, to include performing difficult computerized computations, as well as ability to effectively utilize commonly used graphics, word processing, and related software; good professional engineering judgment; ability to make comprehensive recommendations to engineering problems; strong public speaking skills; ability to establish and maintain effective working relationships with employees and the public.

Senior Engineer (continued)

MINIMUM EDUCATION AND EXPERIENCE: Possession of a bachelor's degree in a related engineering field and four (4) years of related professional experience, to include one year of supervisory experience for positions formally assigned direct reports; OR, any equivalent combination of experience and training which provides the required knowledge, skills and abilities.

ADDITIONAL REQUIREMENTS: May require a pre-employment physical examination and/or medical tests administered by Henrico County Employee Health Services, the components of which are based on and appropriate to the specific sensory and/or physical demands of the given position. May require possession of a valid driver's license issued by the State of Virginia. May require certification as a Building, Mechanical, Electrical, Plumbing, Fire Protection, or One & Two Family Building plan reviewer, Professional Code Administrator or Building Official by the Board of Housing and Community Development, or possession of CEM (Certified Energy Manager) certification.

BP04
08/10/05
G

This is a class specification and not an individualized job description. A class specification defines the general character and scope of duties and responsibilities of all positions in a job classification, but it is not intended to describe and does not necessarily list the essential job functions for a given position in a classification.