

**MONTGOMERY COUNTY GOVERNMENT
ROCKVILLE, MARYLAND
CLASS SPECIFICATION**

**Code No. 004031
Grade 22**

SENIOR ENGINEER TECHNICIAN

DEFINITION OF CLASS:

This is supervisory work of a paraprofessional engineering nature. Contacts are with engineers, architects, contractors, consultants, the general public, and related County personnel to plan and facilitate accomplishment of projects, resolve operating problems, and provide technical advice and/or guidance. An employee in this class offers limited direct service or assistance to the public.

The employees in this class serve as supervisor for a group of paraprofessional employees, assigning and evaluating work, providing technical direction, coordinating activities to ensure timely completion, and providing administrative direction and guidance. All employees in this class independently plan and carry out assignments based on defined objectives and priorities, accepted engineering principles and practices, and available resources. The employee determines methods and reaches conclusions independently, and completed work is reviewed for adequacy and soundness. Guidelines, which include industry standards, State and County codes, regulations, and precedents, are not completely applicable to the work, as when assignments involve new or unusual situations. In such cases, employees must adapt, modify, and/or deviate from guides or recommend changes. The complexity of the work of this class is characterized by systematic analysis of related steps, processes, and methods, the specifics of which are based on the subject or issues involved, as in the preparation of complex designs for the construction of highways and drainage structures utilizing standard design criteria and procedures; the preparation and review of plans, designs, and cost estimates concerning construction of new traffic signals and signal modifications, and overseeing field inspections of traffic signal installations and operation; and the review of grade establishment, storm drain, and paving plans submitted by developers for compliance with the Road Code and established criteria. Efforts of these employees involve treating a variety of conventional problems or situations in conformance with established criteria and affect the overall design or operation of distinct engineering programs. The work is primarily sedentary and performed in an office setting; however exposure to some risks is present when employees are involved in periodic field visits to construction sites and work zones.

EXAMPLES OF DUTIES: (Illustrative Only)

- Analyzes and evaluates design options utilizing standard design criteria and procedures to direct the preparation of design drawings and plans for construction, alteration, or maintenance of roads, bridges, storm drainage systems, sidewalks, bikeways, and other similar projects.
- Directs the review of grade establishments, storm drainage, paving, residential and commercial driveways, and subdivision projects for compliance with established standards and criteria, constructability, and future maintenance impact; prepares permit applications after plan approval; determines amount of bond required and permit fees; processes bonds and fees prior to permit issuance.
- Oversees preparation of traffic signal plans, and coordinates review of consultant bids/contracts;

plans for field inspections of traffic signal, installations/modifications.

- Confers with contractors concerning plans, specifications, and quality of work performed; reviews monthly progress payment requests for conformance to contract and recommends payment of invoices.
- Oversees preparation of plans for the placement of traffic signs and pavement markings for safe and efficient traffic flow.
- Oversees collection and analysis of traffic data by contractors and County staff. Prepares comprehensive reports recommending traffic engineering measures to improve traffic safety and/or increase capacity.
- Oversees staff in the construction, operation and maintenance of the computerized traffic signal computer system. Monitors problems and makes appropriate adjustments to computer system to change signal phases or timing.
- Oversees County streetlight program, planning for placement and maintenance of streetlights. Manages contracts for placement and maintenance of streetlights.
- Trains subordinate personnel; provides technical guidance and assistance; and recommends performance evaluations and/or disciplinary action to higher levels.
- Prepares, or directs the preparation of, correspondence for signature of senior personnel in response to citizen inquiries and complaints and reports and records of unit activities.
- Performs related duties as required.

KNOWLEDGE, SKILLS AND ABILITIES:

- Extensive knowledge of the State and Federal codes, laws, and regulations pertaining to the engineering specialty to which a position is assigned.
- Knowledge of complex mathematics such as advanced algebra and geometry, as well as methods, equipment, and techniques relating to civil engineering.
- Ability to read and interpret engineering plans and specifications and convey their meaning to others.
- Ability to plan, to organize, to assign, and to evaluate the work of paraprofessional and sub-professional engineering personnel.
- Ability to apply basic engineering principles to the solution of problems. Ability to prepare technical reports.
- Ability to work with coworkers, contractors, engineers, and County employees to obtain, clarify, and provide information; to resolve problems or disputes; and to provide advice or guidance.

MINIMUM QUALIFICATIONS:

Experience: Extensive (seven (7) years) experience in an applicable technical field that has required the application of principles of physical science and mathematics to the solution of civil or traffic engineering problems.

Education: Completion of high school or High School Certificate of completion recognized in the State of Maryland.

Equivalency: An equivalent combination of education and experience may be substituted.

LICENSE:

- Possession of a valid Class "C" (or equivalent) driver's license from the applicant's state of residence when required for job-related duties.

PROBATIONARY PERIOD:

Individuals appointed to a position in this class will be required to serve a probationary period of six (6) months, during which time performance will be carefully evaluated. Continuation in this class will be contingent upon successful completion of the probationary period.

MEDICAL EXAM PROTOCOL: Medical History Review.

Class Established: December 1973

Revised: July 1980

August 1987

February 1988

Classification Study: August 1992 (M)

May 1997

May 2008

April 2010

August 2013