



JOB POSITION: WATER QUALITY CAPITAL ENGINEER I

Division: Water Quality
Status: Exempt/Paid
Grade: 18
Job Code: 226A
Reports To: Capital Projects Manager
Date: 11-13-19
Revised Date: 06-21-23
Last Reviewed Date: 06-21-23

SUMMARY OF JOB

Completes and oversees a variety of activities related to the planning/design/construction of water/sewer treatment, pumping, and storage projects. Provides design/drafting services and prepares detailed drawings for water/ sewer projects using current AutoCAD software. Reviews plans/specifications/submittals for various water/sewer projects, including site/subdivision plans for Authority projects. Prepares and reviews plats/agreements for easements. Conducts site visits/field inspections. Prepares cost estimates on engineering projects. Engages in engineering research. Bachelor's degree with a major in civil engineering or related field. Must have successfully passed the Engineer-in-Training examination.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Includes the following. Other duties may be assigned or scheduled.

- Provides design and drafting services and prepares detailed drawings for water and sewer projects using current AutoCAD software.
- Proficiently operates computer software including; asset management and GIS systems, computer aided design (CAD), billing and financial systems, and Microsoft Word, Excel, & Access.
- Manages construction of small water & sewer projects.
- Reviews plans, specifications, and submittals for various water and sewer projects, including site and subdivision plans for Authority projects.
- Prepares and reviews plats and agreements for water and sewer easements.
- Directs field survey crew(s) in the collection of survey data for existing water and sewer assets, including valves, water meters, fire hydrants, sewer manholes, lagoons, basins, vertical assets, etc.
- Prepares, coordinates, and implements traffic control measures when necessary.
- Conducts site visits and field inspections as necessary.
- Assists internal and external customers with questions relating to Authority facilities and services.
- Participates in various work teams as assigned.

- Confers with department manager and/or director on problems encountered in assigned area.
- Reviews plans and specifications for various projects.
- Assists in the formulation of long-range programs for utility improvements.
- Prepares cost estimates on engineering projects.
- Consults with legal representation on project related issues.
- Engages in engineering research.
- Proficiently operates asset management databases and geographical information systems (GIS), familiarity with computer aided design (CAD) software packages, project management software and water and/or wastewater network modeling software.
- Participates in various work teams.

SUPERVISORY RESPONSIBILITIES

None.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Ability to develop, review and recommend processes and procedures for assigned area, identifying and discussing impact on assigned area, the division and the entire organization.
- Ability to think logically and analyze data.
- Ability to effectively present information to management, public groups, and/or employees as necessary
- Ability to respond to inquiries or complaints from employees and customers orally or in writing as necessary.
- Ability to establish and maintain effective working relationships with co-workers, employees, other Water Authority departments and the general public.
- Ability to represent assigned area in meetings attended.
- Ability to work with minimal supervision and negotiate and resolve conflict.
- Ability to analyze and solve difficult technical and administrative problems.
- Ability to define problems, collect data, establish facts and draw valid conclusions.
- Ability to read and interpret documents such as safety rules, operating and maintenance instructions, maps and procedure manuals.
- Ability to apply common sense understanding to carry out instructions furnished in writing, oral or diagram form.
- Ability to write reports, correspondences and procedure manuals in a clear concise manner.
- Ability to communicate technical concepts to technical and non-technical audiences.

- Ability to work alone or in a team environment.
- Must possess and maintain a good work ethic concerning attendance, punctuality, positive attitude, meeting deadlines, being a team player and encouraging teamwork among employees.
- Thorough knowledge of the principles and practices of civil engineering as related to the preparation of plans and specifications for a wide variety of utility and engineering projects
- Working knowledge of equipment, materials, methods and procedures, safety standards and specifications used in water and sewer related activities
- Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables
- Thorough knowledge of land and engineering survey systems methods and techniques
- Ability to adapt approved engineering methods and standards to the design and construction of a variety of utility projects
- Skill in operating computers and software associated with job responsibilities.
- Working knowledge of water and/or sewer modeling, CAD, and GIS.

EDUCATION and/or EXPERIENCE

Bachelor's degree from an accredited college or university with a major in civil engineering or related field.

CERTIFICATE, LICENSE, REGISTRATION REQUIREMENTS

- Must possess a valid Virginia driver's license or have the ability to obtain one within 60 days of employment date. No more than six (6) demerit points on driving record if required to drive Water Authority vehicles.
- Must have successfully passed the Engineer-in-Training examination.

PHYSICAL DEMANDS OF THE JOB

The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- While performing the duties of this job, the employee is regularly required to walk, stand, and sit; use hands to finger, handle or feel; reach with hands and arms; talk and hear.
- Specific vision abilities required by this job include ability to adjust focus. If corrective lenses are noted on driver's license, the lenses must be worn when operating Authority vehicles.
- Repetitive movement using equipment is involved.
- While performing the duties of this job, the employee is regularly required to stoop, kneel, crouch, bend, climb, balance or crawl.
- Employee must be able to stand for an extended amount of time at the jobsite.
- Employee must be physically able to walk several miles during the day.
- Employee must be physically able to regularly reach overhead.

- Employee must regularly lift, carry and/or move up to 50 pounds and occasionally 100 pounds. Assistance is required on weight amounts above those listed. Failure to do so could result in injury and denied Worker's Compensation benefits.

WORK ENVIRONMENT ENCOUNTERED IN THIS JOB

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

- Employee will be regularly exposed to moderate or high noise level, extreme outside weather conditions, uneven, steep, slippery terrain conditions, dusty conditions and wet and/or humid conditions.
- Employee will be subject to exposure to moving mechanical parts and heavy equipment operation.
- Employees will be subject to roadway hazards, i.e. traffic.
- Employee will be subject to outside hazards, i.e. poison ivy, bees, spiders, dirt, animals.
- Employee will be subject to confined areas, i.e. confined spaces, sewer manholes, water vaults, wastewater pits, and/or protected trenches.

GENERAL STATEMENT AND SELECTION GUIDELINES

The above statements describe the general nature and level of work assigned to in this job position. They should not be construed as an exhaustive list of all job duties or tasks performed by personnel so classified.

The following will identify the selection guidelines for job placement:

- WVWA application
- Rating of education, experience, training and qualifications
- Reference checks
- Interview with WVWA management team
- Applicant must pass a pre-employment physical and drug/alcohol test
- A criminal background check and social security number verification will be performed. The results must match information provided by the applicant on the WVWA application.
- Job related test might be required and would be administered to all applicants applying for the position