

JOB DESCRIPTION

<u>Job Title:</u>	Engineering / GIS Technician
<u>Department:</u>	Public Works
<u>Reports To:</u>	City Engineer
<u>Overtime Classification:</u>	Non-Exempt
<u>Date:</u>	Updated December 2020

Definition:

Under the direction of the City Engineer, perform a variety of specialized and technical duties related to specific engineering tasks, including stormwater related field inspections and administrative activities. This position involves using geographic information system software for a variety of tasks. Periodically assist Construction Inspector / GIS Coordinator with GIS data updates and construction related activities. This is a full-time (40 hours per week) position, which is FLSA-covered and eligible for overtime compensation.

Supervision:

Work under the direct supervision of the City Engineer.

Supervises:

No ongoing, formalized supervisory responsibilities, but may act as lead worker, train new employees, and/or review the work of interns and temporary employees.

Essential Job Functions:

- Maintain database records for the Surface Water Management (SWM) utility. Perform and maintain inspection program for public and private stormwater detention and treatment facilities and ensure they are maintained properly. Schedule and perform inspections; issue reports, and create correspondence and enforcement notices.
- Assist in delivery of the Capital Improvement Program including design, construction, project oversight, review and inspection, thereby ensuring compliance with specifications, timelines, established budget and federal/state/city regulations and policies.
- Perform surveying and drafting work, as necessary to generate field data for inspection reports, record drawings, and related items.
- Perform GIS data maintenance, manipulation, analysis, investigation and verification; code and digitize maps and geographical feature data into various layers; perform record keeping and inventory; document and file data sources and map files for future reference.
- Perform field mapping and verify the city's storm water system. Keep and maintain the SWM utility maps, plans, and records.
- Prepare, plan, produce, maintain and update a variety of maps, drawings, plans and other graphic representations displaying layers and attribute data from databases, using cartographic techniques to represent spatial data; develop and maintain data layers using GIS tools and relational databases; enter attribute data pertaining to specific features into a relational database; incorporate maps, charts, data files, spreadsheet data, documentation and text into reports.

- Assist with analyzing and troubleshooting to resolve GIS applications problems; communicate with internal and external technical resources to resolve end user issues; provide guidance to users on methods for correcting reported problems.
- Sample and monitor storm and surface water locations; maintain sample data; create and file required reports detailing tests conducted and results; create and maintain field notes.
- Respond to reports of pollutants; investigate and trace to their source; identify pollutant; enforce clean up and educate the public. Locate and document the source of hazardous spills, provide public information and spill prevention materials, coordinate cleanup efforts with city's maintenance crew.
- Research problems and make recommendations for changes, including revising and adopting engineering standards and codes.
- Review bid specs and plans associated with CIP projects.
- Assist engineering team with Capital Improvement Project (CIP) construction inspection and documentation when needed.
- Audit annual SWM Fee update with King County to ensure correct billing.
- Gain/maintain all necessary training to ensure compliance with the NPDES requirements.
- Review existing Stormwater As-Built files, as needed.
- Assist with asset management program, including training with end users, implementation, updates, reports, and interaction with asset management vendors.
- Provide technical assistance to team members and staff regarding policies, procedures and methods related to asset management
- Driving is essential to perform job functions (see special requirements).
- Inspect for safety hazards on job sites and modify procedures, as required, to ensure safe working conditions.
- Help develop and maintain standard plans and specifications for the City.
- Other related duties, as required.

Qualifications:**Knowledge of:**

- City storm drainage systems.
- Principles and practices of civil and construction engineering
- Utilities operations (i.e. SWM, sewer, water, etc.)
- Federal, State and local water quality standards and issues
- NPDES Phase II permit requirements
- King County Stormwater Manual
- Field data collection techniques, interview skills; basic understanding of principles and practices of utilities project design process
- Methods, materials, equipment, and techniques used in civil engineering, construction, and inspection
- Electronic file management
- The operation of field equipment and ability to perform minor trouble-shooting on equipment
- Principles and practices of GIS analysis and design

- Operation of a personal computer and familiarity with Microsoft based software, particularly MS Word and Excel.

Ability to:

- Perform routine work completely, accurately and consistently
- Accurately record data and develop simple reports
- Train others in the use of GIS applications
- Research policies and procedures and respond to inquiries for information
- Assess data and make recommendations
- Inspect storm water systems
- Use software programs (i.e. MS Excel, MS Word) and databases used by the City for mapping, design and analysis
- Perform data entry as needed
- Listen and ascertain the needs of customers
- Find and communicate accurate information concerning processes, policies and procedures to customers
- Respond to customers tactfully and courteously (both orally and written)
- Communicate effectively, orally and in writing
- Read plans and construction drawings

Education and Experience:**Minimum Criteria:**

Significant college-level coursework in engineering sciences, project management, GIS/drafting or related field. High School Diploma or GED could substitute with appropriate years of experience such as increasingly responsible experience involving municipal/public works information. An equivalent combination of education, training and experience to provide sufficient evidence of the successful performance of the essential elements of the job may be a suitable substitution.

Preferred Criteria: *(In addition to Minimum Criteria)*

Graduation from an accredited four-year college or university with a degree in engineering sciences or geographic information systems. Two or more years of municipal or government employment experience.

Special Requirements:

- Possession of a valid Washington State driver's license, or ability to obtain one within one month.
- Satisfactory results from a nationwide criminal background check and complete driving record check.
- Flagging certification.
- Proper documentation to fulfill the requirements of the Immigration and Nationality Act within three (3) days of employment is a condition of employment with the City of Covington.

Physical Demands and Work Environment:

- **Constant Demands:** Sitting, standing, walking, talking, hearing, seeing, writing.
- **Frequent Demands:** Driving, standing, walking, climbing, balancing, stooping, kneeling, crawling, pushing, pulling, feeling, reaching, lifting, grasping, twisting above the waist and reaching (knees to shoulder and above shoulder), bending at waist, repetitive hand and arm motion, and fine finger manipulation in the use of a computer. Ability to work a varied work schedule of days and nights.
- **Work Environment:** Construction site environment; travel from site to site; exposure to noise, dust, grease, smoke, fumes, gases, potentially hazardous chemicals, heat, cold, toxic materials, inclement weather conditions; work or inspect in confined spaces or underground; work in or with water, work around heavy construction equipment.