CITY OF BELLINGHAM

JOB DESCRIPTION

JOB TITLE:	**GIS Technician**	**UNION:1937**
		SG:113
CLASS TITLE:	**Engineering Technician**	**CS:Y**
		FLSA:Y
DEPARTMENT:	**Public Works/Operations**	**EEO4CODE:TE**

JOB SUMMARY:

Performs a variety of technical office and field duties updating, maintaining and analyzing the Department's GIS and utility infrastructure data using GIS, database and information management applications. Coordinates and performs research and field data collection of infrastructure location, structural and condition information. Provides queries and analysis on infrastructure, maintenance, condition, replacement and management data and develops reports, maps and presentations for use by internal and external customers.

SUPERVISORY RELATIONSHIPS:

Reports to the Data Services Supervisor or GIS/Technical Services Manager and may receive technical direction from the GIS Specialists or Senior Analysts. Work is assigned by the Data Services Supervisor or GIS/Technical Services Manager and reviewed by the Data Services Supervisor, GIS Specialists, and/or Senior Analysts.

Follows defined procedures, standards and practices and works under applicable City regulations, policies, guidelines and appropriate technical mapping and data collection standards. May provide training to temporary and regular City employees regarding data collection and GIS utilization. Work is performed under close supervision until technical skills and independence are achieved.

ESSENTIAL FUNCTIONS OF THE JOB:

1. Performs accurate and timely updates to the Department's and/or City's GIS files and data management records. Follows procedures and schedules to attain mapping and data management goals.

2. Performs quality control on updated GIS data sets by running and reviewing quality control reports on spatial integrity and attribute consistency. Performs quality control checks between GIS datasets and other Department business systems such as maintenance management, utility modeling and infrastructure inspection systems to ensure integrated system data consistency.

3. Performs field collection of infrastructure location, structure and condition information. Records information into database systems and GIS mapping layers.

4. Researches and evaluates infrastructure and utility information and provides technical information and assistance to City personnel and the public. Initiates contact with City personnel, private utilities, engineering firms and the public to verify infrastructure and utility information, resolve problems, and exchanges information to ensure accuracy of GIS mapping and infrastructure data.

5. Performs analysis procedures for spatial and non-spatial data to generate statistical, condition and maintenance reports, and technical maps. Determines nature of information to be queried, analysis methods and reporting format.

6. Prepares effective presentation of information using appropriate cartographic elements and media output. Creates output such as presentation maps, map books, graphs and publications using GIS and presentation software and related equipment. Presents and explains information to City staff and the public.

7. Trains and supports City staff in the use and applications of GIS data viewing software, departmental database management and associated information.

ADDITIONAL WORK PERFORMED:

1. Assists other City departments with GIS mapping and analysis as needed.

2. Assists in the development of GIS and data collection standards to ensure uniformity and compatibility within the data mapping systems.

3. Assists in the documentation of the GIS databases (metadata), procedures and business data interfaces.

PERFORMANCE REQUIREMENTS (Knowledge, Skills, and Abilities):

- Knowledge of GIS and cartographic principles, terms, concepts, procedures, and geoprocessing functions and techniques.
- Knowledge and ability to operate and use GIS hardware, software and related peripheral equipment.
- Ability to prioritize workload, solve problems, and meet deadlines with a minimum of supervision.
- Knowledge of mathematics, algebra, trigonometry, and geometry.
- Knowledge of civil engineering, mapping and surveying principles, terms, concepts, techniques and procedures.
- Knowledge of public works and engineering data and records management systems and practices.
- Knowledge and ability to operate database and reporting applications.
- Analytical and problem solving skills.
- Ability to understand technical manuals and follow established procedures.
- Ability to maintain records and prepare necessary technical reports.
- Ability to work independently and as part of a team.
- Ability and willingness to demonstrate the Public Service Competencies of Service Orientation, Results Orientation, and Teamwork and Cooperation.
- Good skills in oral and written communication, problem solving, and ability to learn to work independently with a minimum of supervision.
- Ability to read, understand and translate engineering drawings, maps and legal descriptions.
- Ability to produce and maintain computer generated maps and other graphic presentations.
- Ability to establish and maintain effective working relationships with diverse groups of people such as contractors, engineers, developers, public officials and the general public.
- Physical ability to perform essential functions of the job:
    - Adequate hearing, correctable vision, and manual dexterity.

- Ability to occasionally lift light weight (10-15 lbs.).
- Ability to perform extensive walking tasks (average of 2-6 miles per day), drive, and accurately perform condition rating tasks in all weather conditions for extended periods of time throughout the service area.

WORKING ENVIRONMENT:

Work is primarily performed in an office setting, and requires sitting and working for extended periods in front of a computer terminal. Some positions may also perform field work outdoors on uneven terrain, exposing employee to inclement weather, noise, fumes, construction environment, and traffic hazards. Employees are required to use appropriate safety equipment and follow standard safety practices.

EXPERIENCE AND TRAINING REQUIREMENTS:

- An AA degree in engineering or GIS technology including coursework in surveying, cartography, and civil engineering mapping; AND
- Two years of GIS or CAD mapping experience in a public works environment
- A combination of education and experience, which provides the applicant with the required knowledge, skills and abilities, will be considered.
- Regular City employees who meet the experience and training requirements will be considered for promotional opportunities in this class.

NECESSARY SPECIAL REQUIREMENT:

Valid Washington State driver's license and good driving record. A three-year driving abstract must be submitted at the time of hire.

PREPARED BY: D. Burdick
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2/01

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REVISED BY: D. Burdick/L.Klemanski
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COMMISSION ALLOCATION: January 10, 2007