GAS INFRASTRUCTURE SPECIALIST

JOB DESCRIPTION

Classification Responsibilities: A Gas Infrastructure Specialist has cross-functional position responsibilities for the development and implementation of the Gas Division's infrastructure management system. Duties include, but are not limited to: performs database maintenance and development in Access; acts as technical support for laptop computer applications for field personnel (example: uploading changes to software, researching problems, etc.); provides recommendations regarding computer equipment and technical systems for the Gas Division; acts as Energy Resources Department liaison for the City's Electronic Mapping Systems (EMS) Map Viewer software; uses and technically supports Survey Grade Global Positioning System (GPS) equipment used to locate/identify land-base monumentation and utility assets; manages utility data through reviewing quarter section maps, right-of-way maps, valve books, and other documentation to verify the accuracy of the data; maintains Quality Control and Quality Assurance (QA/QC) for Gas as-builts, work orders, construction and maintenance documentation, field data collection, various databases, and other reports; and submits approved as-builts to Geographic Information System (GIS) staff for input. The class performs other related duties as required.

Distinguishing Features: The Gas Infrastructure Specialist is distinguished from the Gas Infrastructure Technician class by the latter performing more routine data entry and clerical duties. This class may act in a lead capacity to facilitate Utility GIS, GPS, and field data collection training and to ensure documentation conforms with required engineering, drafting, regulatory, and mapping standards. This class receives supervision from the Gas Technical Services Supervisor. This class is FLSA-nonexempt.

QUALIFICATIONS

Employee Values: All employees of the City of Mesa are expected to uphold and exhibit the City's shared employee values of Knowledge, Respect, and Integrity.

Minimum Qualifications Required. Any combination of training, education, and experience equivalent to graduation from an accredited college or university with a Bachelor's Degree in Management, Computer Information Systems, or closely related field. Extensive (5+ years) field experience in gas, water, and/or wastewater construction, cathodic protection systems, or land survey. A minimum of one-year experience in the following: AutoCAD, ArcGIS, Leica GeoOffice, Windows operating systems, MS Access, MS Excel, and Dbase.

Special Requirements. Must possess a valid Class DArizona Driver's License by hire or promotion date.

Substance Abuse Testing. None.

Preferred/Desirable Qualifications. Experience in Visual Basic, Map Objects, MS SQL, Oracle.

ESSENTIAL FUNCTIONS

Communication: Communicates with the general public, other City employees, vendors, management, contractors, and other government agencies in order to convey utility information and data needs. Prepares written documents such as: proposals, procedures, Request for Proposals (RFP's), and letters, with clearly organized thoughts using proper sentence construction, punctuation, and grammar in order to transfer information to other parties. Facilitates and conducts Utility Infrastructure and Field Map Viewer training for field personnel and staff. Must possess strong oral and written communication skills. Provides recommendations and specifications through formal presentations and written reports of findings in order to communicate to management, Department of Innovation and Technology (DoIT), and GIS technical staff. Documentation includes work completed, work and project procedures, coordinating GPS/GIS data collection, and status reports. Graphically communicates through maps and other visual presentation formats as required. Coordinates activities between Computer-Aided Drafting (CAD) and GIS mapping functions.

Manual/Physical: Reviews the work products of others to ensure compliance with standard operating procedures, federal regulations (Department of Transportation [DOT] Part 192), State Statutes (ARS Title 14 Article 2), and City specifications. Inspects, monitors, and evaluates information to identify proper conditions and equipment needed for work assignments to determine compliance with prescribed operating safety standards that apply to specific projects to be undertaken. Distinguishes colors to determine markings for utilities. Operates a vehicle requiring a standard Class D Arizona Driver's License to field verify data at construction sites. Ability to detect sounds required for field safety when verifying as-builts or GPS issues. Operates a variety of standard office equipment such as personal computer (PC), telephone, calculator, printer, and plotter. Prepares and updates utility maps, schedules, graphs, benchmark elevations, and monument ties to support field and management requests for accurate and timely data. Performs physical inventories of all survey equipment and tools. Moves GPS instruments and supporting equipment (up to 30 lbs.) with the assistance of a handcart, power winches, or rigging equipment to load and/or unload and place equipment.

Mental: Oversees the process of transferring gas construction and maintenance information and/or digital data into the Gas Divisions permanent records. Performs quality control and quality assurance on data to ensure conformance with Federal and City regulations and standards. May provide functional supervision to special project teams, as directed by immediate supervisor. Conducts research and/or analyzes system-related data to improve system performance. Comprehends and makes inferences from written material, including technical documentation related to systems applications. Develops procedures, implementation plans, documentation, and infrastructure training for field personnel and other staff, as assigned. Provides recommendations for computer equipment, GPS instrumentation, and technical systems for the Energy Resources Department. Advises management of short- and long-range department/division infrastructure requirements by analyzing software systems and making recommendations for upgrades and more efficient uses of software systems. Performs mathematical calculations and statistical computations. Understands and interprets quarter section maps, engineering as-built blueprints, real estate maps, right-of-way maps, field surveys, engineering microfilm, valve books, service cards, and meter records in order to verify accuracy of related data. Performs analysis, documentation, testing, and problem resolution related to GIS mapping issues. Learns job-related material through on-the-job training and in a classroom setting regarding the City's utilities, GPS equipment, and other job-related requirements.

Knowledge and Abilities:

Knowledge of:

the symbols and terminology used in utility mapping and engineering drawings;
Microsoft (MS) Office, Outlook, Project, Visio, Lotus Notes, ARC/GIS, AutoCad, MS SQL, Oracle, and related GPS application software;
interface between wireless communication devices and notebook computers, other mobile devices;
Utilities GIS;
full systems life cycle and software engineering methodologies, including gathering requirements, analyzing requirements, and documenting requirements;
relational database concepts; and
data warehouse and project management;

Ability to:

follow established department objectives to complete work within project scope and milestone dates;
work in a team setting, as well as on own recognizance to translate divisional needs into applications;
interpret policy and regulations to identify impact on the operations, administration, and automated system;
prepare proposals and reports for automation strategies and program compliance;
interpret engineering drawings from sketches, verbal description, and specifications;
interpret real estate maps showing land acquirements, land condemnations, right-of-way abandonment, proposed property purchases, and related location maps to find utility related information;
identify new utility lines showing line size, valve locations, public easements, and related;
create a variety of spreadsheets, data analysis, charts, and forms and comprehensive written reports;
determine and develop data collection methods, instruments, and reports for system evaluations and accountability;
update documentation for the procedures manual;
identify addresses to new subdivision lots;
answer complex questions from the general public and other divisions and departments regarding requests about Infrastructure Management;
perform detailed utility records research;
write procedures, job set-up instructions, and perform program librarian duties;
operate and develop methodology for data collection, report data, and instrument maintenance training;
provide support for Survey Grade and Asset Grade Global Positioning (GPS)Program;
configure and test field hardware components;
create and evaluate Requests for Proposals; and
establish and maintain effective working relationships.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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