

**Phelan Piñon Hills Community Services District  
Job Description**

JOB TITLE: Engineering/GIS Technician

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EXEMPT:	No	SALARY LEVEL:	95
DEPARTMENT:	Engineering		
REPORTS TO:	Engineering Manager	APPROVED:	7/1/2015

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**SUMMARY:**

Under the general supervision of the Engineering Manager, the Engineering/GIS Technician performs routine engineering tasks involving the use of a computer-aided drafting (CAD) system, mapping data using GIS, plan check reviews, assist in construction management, project contraction administration, and review. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

**ESSENTIAL DUTIES AND RESPONSIBILITIES:** (Responsibilities and duties may include, but are not limited to, the following)

**GENERAL:** Assists in planning and formulating engineering programs. Occasionally work with District office and field staff. Assist in organizing staff and contractors according to project requirements. Assist in analyzing reports, maps, drawings, blueprints, tests, terrain, hydrological characteristics, and other topographical and geologic data to plan and review projects. Assist in collecting and analyzing field data and preparing graphs, charts and reports. Assist in preparing or direct preparation and modification of reports, specifications, plans, maps, exhibits, and construction schedules. Assist in coordinating with contractors (inspectors, etc.) to verify conformances to design and District specifications. Use of computer assisted engineering, design, and GIS software and equipment to prepare or modify details, system mapping, charts, etc.

**ENGINEERING:** Assists in the development review of water facilities capital improvements; assist in the preparation of design plans, specifications, and bid documents for construction of and improvements to water system; estimate costs, time and materials; compile data; prepares reports related to the construction and improvement of water facilities and park facilities. Assist in the construction management and coordination of District projects.

**COMPUTER AIDED DRAFTING (CAD), GEOGRAPHICAL INFORMATION SYSTEM (GIS) ATLAS, MAPPING AND DRAFTING:** Maintenance of the base mapping system, including drafting of new pipelines and appurtenances, by use of CAD and GIS software. Provide GIS water system mapping support including maintenance and editing features, incorporate as-built pipelines and other related updates. Maintain changes to the District maps, as per the assessor's parcel configuration. Assist in creating, producing and updating system map books. Compiles information regarding field work and survey through coordination with field survey crews who locate grading markers and collect data required for revision of construction drawings, as directed by Engineering Manager. Plot maps and charts showing profiles and cross-sections, indicating relation of topographical

contours and elevations to buildings, retaining walls, tunnels, overhead power lines, and other structures. Drafts detailed drawings of pipeline, well sites, property sites, and other various District projects. Maintain catalog and assigns numbers to design drawings. Maintenance and organization of all District maps, drawings, etc. Ability to use large format plotters and/or printers as well as and custom plotting configurations. Provide spreadsheets and reports utilizing GIS features attributes edit, update, and add features with attributes to a GIS and CAD based water system map.

**ESTIMATING TASKS:** From predetermined unit prices, develop cost estimates for District construction, maintenance, developer projects, plan check, etc. to determine bonding amounts needed, plan check and inspection fees needed, District projects, etc.

**PUBLIC RELATIONS:** Assists in proper handling of consultants and contractors. Respond and provide information and/or as-builts/maps to utilities requests from engineering firms, utility companies or others.

**SECONDARY DUTIES AND RESPONSIBILITIES:** Include the following: Assist in directing the preventive maintenance program and coordinates its scheduling and execution. Reviews field reports for production; reviews consumption records; monitors losses; reviews energy consumption, etc. Ensures that a cross-connection control program is maintained. Other duties may be assigned

**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.

**EDUCATION AND/OR EXPERIENCE:** Requires completion of two years of college level coursework in civil engineering or a related field and three years of experience performing technical duties related to water works engineering, inspection, and project management.

**LANGUAGE SKILLS:** Ability to read and interpret documents such as safety rules, operating and maintenance instructions, and procedure manuals. Ability to write routine reports and correspondence. Ability to speak effectively before groups of customers or employees of organization.

**MATHEMATICAL SKILLS:** Ability to calculate figures and amounts such as discounts, interest, commissions, proportions, percentages, area, circumference, and volume. Ability to apply concepts of basic algebra and geometry.

**REASONING ABILITY:** Ability to solve practical problems and deal with a variety of concrete variables in situations where only limited standardization exists. Ability to interpret a variety of instructions furnished in written, oral, diagram, or schedule form.

**COMPUTER SKILLS:** To perform this job successfully, an individual should have some familiarity with a SCADA System; proficient in using Microsoft Excel, Word, and Power Point. Must be proficient in using AutoCAD software version 2010 or more recent version. Basic knowledge of ArcMap and ArcCatalog 10 (ESRI) and general knowledge of GPS transfer software.

**CERTIFICATES, LICENSES, REGISTRATIONS:** Employee must maintain a current, valid, California Driver's License and have proof of good driving record.

**OTHER SKILLS and ABILITIES:** Ability to use survey equipment and perform minimal surveys. Basic understanding and ability to read legal descriptions.

**PHYSICAL DEMANDS:** 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 use hands to finger, handle, or feel; reach with hands and arms; climb or balance; stoop, kneel, crouch, or crawl and talk or hear. The contracted employee is frequently required to stand; walk and sit. The contracted employee must regularly lift and /or move up to 25 pounds, frequently lift and/or move up to 50 pounds and occasionally lift and/or move up to 100 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception and ability to adjust focus.

**WORK ENVIRONMENT:** 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.

While performing the duties of this job, the employee is occasionally exposed to fumes or airborne particles; outside weather conditions; extreme cold and extreme heat. The employee is occasionally exposed to moving mechanical parts; high, precarious places; toxic or caustic chemicals and risk of electrical shock. The noise level in the work environment is usually moderate.

**COMMENTS:** Must read and comply with the District Safety Manual and the District Employee Manual and all policies and procedures.

At the discretion of the Engineering Manager and as activity deems necessary, this job may require participation in evening and possibly weekend meetings.