



GIS Technician Job Description

Reports To: GIS Analyst
Department: Engineering

Pay Range: \$23.26 - \$34.12 Hourly
Classification: Non-Exempt

Position Summary

Under the general supervision of the GIS Analyst, this position performs technical work involving the operation and utilization of Geographic Information System (GIS) tools. Responsibilities include supporting the enhancement, expansion, and maintenance of the GIS for Pace Water System (PWS), including working with GIS databases, layers, shapefiles, and graphics.

Essential Duties and Responsibilities

The following duties are representative of the functions performed in this classification. The omission of a duty does not preclude management from assigning additional related duties.

- Operate and maintain computer systems and associated peripherals.
- Organize, update, analyze, manipulate, and retrieve geographic data from multiple sources, collaborating with PWS departments and external agencies.
- Create, manipulate, and edit PWS spatial data obtained from various sources, including CAD drawings, GPS data, as-built drawings, historical maps, and handwritten schematics or survey notes.
- Interpret and analyze spatial data, maps, charts, graphs, plans, spreadsheets, and survey notes.
- Conduct intermediate GIS analysis functions to produce maps and reports that effectively communicate results.
- Prepare and distribute digital, online, and hard copy maps to PWS staff, external organizations, and the public.
- Stay current with GIS trends and advancements, applying this knowledge to improve processes and tools.
- Develop, test, and implement GIS procedures that support the PWS Engineering Department's goals.
- Perform quality control checks to ensure data accuracy, including verifying the input/coding and spatial accuracy of data and using spatial coordinate geometry for GPS survey data.
- Maintain and update GIS data layers, structures, domains, and relational database design.
- Perform all other duties as assigned.

Knowledge, Skills, and Abilities

GIS and Mapping Knowledge

- Strong understanding of GIS technologies, including data analysis methods, GIS toolsets, file formats, map projections, and digital compilation techniques.



GIS Technician Job Description

- Knowledge of base mapping principles, cartographic and topographic techniques, and spatial data structures.
- Familiarity with GNSS-based field data collection and correction processes.
- Ability to use GIS and remote sensing data for spatial data development, conversion, and map production.

Technical Skills

- Proficiency in Python and ArcPy for automation and advanced GIS tasks is desirable.
- Experience with GIS software, including ArcGIS Pro and ArcGIS Online, is preferred.
- Ability to organize, analyze, and resolve complex GIS-related issues.

Communication & Interpersonal Skills

- Strong written and verbal communication skills, with the ability to present technical information to non-technical audiences.
- Ability to effectively interact with diverse groups, including managers, clients, colleagues, contractors, and the public.
- Ability to manage conflict constructively and maintain confidentiality of business operations.

Professional Traits

- High level of integrity, responsibility, and reliability in meeting deadlines and fulfilling commitments.
- Ability to work effectively within a team and foster positive relationships with co-workers and stakeholders.
- Demonstrated commitment to safety protocols and professionalism in all aspects of the role.

Education and Experience

- Bachelor's degree in Geographic Information Systems, Geography, Computer Science, Cartography, or a related field from an accredited institution.
- In lieu of a Bachelor's degree, any combination of relevant education, training, and experience that provides the necessary knowledge and skills to perform the essential functions of the role.

Licenses, Certifications, or Registrations

- Valid Driver's License (must be approved as an insurable driver by the insurance carrier).

Physical Requirements

Reasonable accommodations may be made for individuals with disabilities to perform the essential functions of the job.

- The role involves both office and fieldwork. Fieldwork includes data collection, asset inventory, and verification; office work involves analysis and integration of collected data.



GIS Technician Job Description

- Fieldwork may require working on active construction sites, interacting with contractors and inspectors, and navigating challenging terrain.
- Physically demanding tasks may include standing, walking, lifting, pulling, bending, stooping, crouching, reaching, crawling, climbing, and repetitive motions.
- Requires the ability to use close and distant vision, adjust focus, and perceive information at normal spoken word levels.
- Requires the ability to distinguish shades of color.
- Exposure to disagreeable environmental factors, such as outside weather conditions, dampness/humidity, heat and cold, noisy and dusty conditions, odors, heights, and working with moving objects and vehicles.
- Must have manual dexterity to operate office equipment, including computers and data entry tools.