



GIS ANALYST

*Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are **not** intended to reflect all duties performed with the job.*

DEFINITION

To perform a variety of professional level duties in the operation, maintenance, development, and services of a geographic information system.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from a higher level manager.

ESSENTIAL AND MARGINAL FUNCTION STATEMENTS -- *Essential and other important responsibilities and duties may include, but are not limited to, the following:*

Essential Functions:

1. Maintain the City's geographic information system (GIS); prepare maps, drawings, spreadsheets, data files, and documentation; compile data for input into the system; develop, edit, and automate data layers; update and enhance the GIS database utilizing a variety of software; maintain the integrity of the GIS database; perform quality control checks to ensure the accuracy of the data.
2. Develop computer macros, scripts, and programs for data integration and extraction of the GIS database and for automating repetitive tasks, ARC/Info administration, and mapping activities. Manipulate and convert files for programs utilizing GIS applications.
3. Design, create, plan, update, and maintain maps, drawings, plans, spreadsheets, data files, and documentation related to the GIS system including projects that may reach across multiple departments.
4. Perform maintenance of GIS-related hardware, including plotters, scanner, workstations, digitizers, and GPS equipment. Schedule system back-ups as needed.
5. Maintain the security of confidential and proprietary information being processed; ensure the archival and safe storage of program and data files; maintain files in accordance to the City's retention schedule, including a log of all archived and stored data.
6. Perform GIS application administration activities such as creating, modifying, and deleting users, groups, resources, membership rights, routine GIS software upgrades, and security access. Process New Hire and Termination Checklists, add or delete user access as approved.

7. Manage assigned help desk tickets and escalate tickets when appropriate. Consult with end users to determine GIS and system information needs. Provide information, technical support, and training.
8. Read and interpret engineering maps, blueprints, and civil engineering plans and specifications to maintain a database for the collection of water, sewer, storm drain, street, street lighting, traffic signal, traffic control signage, and other public facilities information.
9. Monitor vendor contracts, agreements, and license renewals for expiration dates. Coordinate vendors for hardware and software repairs as needed. Verify that invoices are charged to the proper accounts.
10. Perform basic information technology help desk functions.
11. Maintain currency of knowledge with respect to related technology, equipment, and systems.

Marginal Functions:

1. Perform related duties and responsibilities as required.

Knowledge of:

Geographic Information Systems software including ArcInfo, Arcview, ArcIMS, ArcSDE, ArcPad, ArcGIS Server, and Spatial Analyst.

Statistical, mathematical, and computer science theory, methodology and technical solutions.

Principles and practices of GIS including computer mapping and attribute data conversion, manipulation and analysis.

GIS database administration including quality control and assurance methods and practices.

Principles and practices of AutoCad.

Basic engineering, cartography, surveying, maps, records, and drafting.

Basic information technology infrastructure.

Engineering maps and records.

Voice/data communication systems.

Computer operating systems.

Modern office procedures, methods, office software, and computer equipment.

Ability to:

Learn City policies and procedures.

Perform work in accordance with sound safety practices.

Determine the best methods and procedures for completing assignments.

Utilize a variety of GIS software, computer-aided drafting, graphics, and other applications.

Learn basic information technology administration and help desk functions.

Communicate clearly and concisely, both orally and in writing.

Understand the organization and operation of the assigned department and outside agencies as necessary to assume assigned responsibilities.

Interpret and apply administrative and departmental policies and procedures.

Work independently in the absence of supervision.

Establish and maintain cooperative work relationships with those contacted in the course of work.

Maintain physical condition appropriate to the performance of assigned duties and responsibilities which may include the following:

- *Sitting, standing, or walking for extended period of time*
- *Operating assigned equipment.*

Maintain effective audio-visual discrimination and perception needed for:

- *Making observations*
- *Communicating with others*
- *Reading and writing*
- *Operating assigned equipment and vehicles.*

Maintain mental capacity which allows for effective interaction and communication with others.

Experience and Training Guidelines – *Any combination of experience and training that would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:*

Experience:

Three (3) years of increasing responsible experience in Geographic Information Systems.

Training:

Equivalent to a Bachelor's degree from an accredited college or university with major course work in Geographic Information Systems, Geography, Computer Science, Cartography, or a related field.

License or Certificate

Possession of a California Class C Driver's License.

WORKING CONDITIONS

Work in an office environment; prolonged standing and sitting. Prolonged use of keyboard and video display terminal. Exposure to vibrations and pitch of computer and other office equipment. Infrequent lifting of up to fifty pounds.