

DEFINITION:

Under general direction and supervision to perform a variety of technical and general assignments, which includes but is not limited to, developing and maintaining various GIS maps and other geographic source data by manual and automated means for use by County departments and other public agencies, consultant, contracts and the public; to create and maintain assigned aspects of the Geographic Information System (GIS) data base; to analyze GIS data and information; and to generate maps and reports as requested.

DISTINGUISHING CHARACTERISTICS:

GIS Technician I:

This is the entry-level position in the GIS Technician series. This class is distinguished from the Geographic Information System Technician II by the performance of the more routine tasks and duties assigned to positions within this series. Employees at this level are not expected to perform with the same independence of direction and judgment on matters allocated to the journey level. Since this class is typically used as an entry class, employees may have only limited or no directly related work experience. Employees work under immediate supervision while learning job tasks.

GIS Technician II:

This is the journey level position in the GIS Technician classification series. This class is distinguished from the Geographic Information System Technician I level by the assignment of the full range of duties assigned including the more difficult or complex work. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies within the work unit. Positions in the class are flexibly staffed and are normally filled by advancement from the entry level.

GIS Technician III:

This is the advanced journey level class in the Geographic Information Technician series. Positions at this level are distinguished from other classes within the series by the level of responsibility assumed, complexity of duties assigned, independence of action taken, and by the nature of the public contact made. Employees perform the most difficult and responsible types of duties assigned to classes within this series including technical and functional supervision of technical and clerical staff and performance of difficult and complex mapping, drafting and related geographic information systems duties. Employees at this level are required to be fully trained in all procedures related to assigned area of responsibility.

EXAMPLES OF DUTIES: (Duties vary depending on assignment.)

- Participate in the development of databases associated with the GIS base mapping and subsequent map layers.
- Determine and collect relevant data from sources such as aerial photographs, U.S.G.S. maps, parcel maps and field survey notes.
- Update a variety of maps, including utility, zoning, reference, topographic, political boundary and maps by making changes and drawing new boundaries to ensure that maps are current.
- Prepare, code and digitize maps and geographic feature data into the GIS database following prestablished procedures and sequences to update layers within the system.
- Determine and execute the appropriate sequence of processing tasks in order to appropriately complete a GIS automation assignment.
- Prepare and provide reports, mapped data, special query maps and other geographic source data, blueprints/bluelines and related information and documents to County departments, other public agencies, consultants and contractors and the general public.
- Provide technical assistance to others as needed.
- Participate in meetings and committees as requested.
- Create original map manuscripts for use as source material in the GIS automation process.
- Verify accuracy of digitized data using source materials to ensure high quality results are achieved
- Maintain positive working relationships with co-workers, other County employees and the public.
- Perform advanced processing functions using established commands and software options, incorporating data for other systems, to create database files and produce final reports.
- Participate in the design and management of databases associated with the GIS base mapping and subsequent map layers.
- Modify GIS basic programming as necessary to accommodate user's needs; verify accuracy of digitized data using source materials to ensure high quality results are achieved.
- Participates in GIS skill sharing and mentoring within GIS team and with other departments in the County.
- Ability to interpret the Addressing Code, properly assign new addresses, resolve new or pre-existing "problematic Addresses", update and maintain an Addressing layer in the GIS system.
- Participates in setting and modifying County Addresses as required.
- Prepare, code and digitize maps, and/or geographic feature data into the GIS computer data base, following pre-establish procedures and sequences, to update and

create data layers within the system; determine and execute the appropriate sequence of processing tasks in order to appropriately complete a GIS automation assignment.

- Perform related duties as assigned.

SPECIAL REQUIRMENTS:

Possession of an appropriate California driver's license issued by the State Department of Motor Vehicles.

MIMIMUM QUALIFICATIONS:

Knowledge of:

Principles and practices of Geographic Information Systems; algebra, geometry and trigonometry, especially in computation of distances, angles and areas; principles and practices of cartography and engineering drafting including map projects and scales; modern office procedures, methods and computer equipment; Computer aided drafting and mapping tools and program, including AutoCAD software, ESRI based GIS software (ArcInfo,, ArcView, ArcOnline.) and its application and other relevant software, programs and databases and their uses; map drafting procedures, terminology, drafting tools and equipment; and principles and practices of good customer service.

Ability to:

Research sources of geographic data and collect, interpret maps; prepare maps, accurately delineating feature locations and boundaries on map manuscripts; comprehend and interpret county code, produce engineering drawings; work independently and as a cooperative; communicate effectively and concisely orally and in writing; learn to use tools and equipment commonly used in drafting and office procedures; assist in the design of databases associated with the GIS base mapping and subsequent mapping layers; design and develop sequence-processing tasks and perform spatial analysis.

Education, Training and Experience:

GIS Technician I:

Equivalent to an Associates degree from an accredited college with major course work in cartography, GIS or a related field. Must have complete college-level course and/or professional training seminars in ESRI applications AND one year of AutoCAD, ESRI-based GIS software applications, databases and other relevant computer software, program and database experience.

GIS Technician II:

Equivalent to an Associate's degree from an accredited college with major course work in cartography, GIS or a related field. Must have completed college-level courses and/or

G.I.S. Technician I/II/III

County of Calaveras

Range 7439/7530/7795 (Non-Exempt)

professional training seminars in ESRI applications AND three years of experience as a GIS Technician I.

GIS Technician III:

Equivalent to an Associate's degree from an accredited college with major course work in cartography, GIS or a related field. Must have completed college-level courses and/or professional training seminars in ESRI applications AND two years of responsible journey level experience performing duties similar to those of a GIS Technician II.

PHYSICAL DEMANDS AND WORKING CONDITIONS:

Mobility to work in a standard office environment; use standard office equipment; physical ability to sit or otherwise remain stationary at work post for long periods of time; manual dexterity to use standard office equipment and supplies and to manipulate both single sheets of paper and large documents holders (binders, manuals, etc.); vision to read handwritten and printed materials and a computer screen; hearing and speech to communicate in person and by telephone.

OTHER REQUIREMENTS:

This class description lists the major duties and requirements of the job and is not all-inclusive. Not all duties are necessarily performed by each incumbent. Incumbents may be expected to perform job-related duties other than those contained in the documents and may be required to have specific job-related knowledge and skills.

Established as I/II series: September 2001

Revised to include III series: August, 2006 / Resolution 06-224

Revised: June, 2016 Preliminary Budget /Resolution #

Range: (I) 7439 (II) 7530 (III) 7795

Associated Departments: Information Technology (GIS)