GEOGRAPHIC INFORMATION SYSTEMS ANALYST I/II

Approved: January 2026
FLSA: Non-exempt
Unit: SEIU/AFSCME

CITY OF
MENLO PARK

Definition

Under general direction, plans, develops and implements activities related to the support, deployment, operation and usage of the City's geographic information system (GIS); coordinates projects related to management of interfaces, applications setup, business process review and customization; provides complex and responsible technical and analytical support to the Information Technology Manager in areas of expertise; and performs related work as required.

Supervision received and exercised

Receives direct or general supervision from the Information Technology Manager or assigned manager. Exercises no direct supervision of staff.

Class characteristics

GEOGRAPHIC INFORMATION SYSTEMS ANALYST I
This is the entry-level class within the Geographic Information Systems Analyst series. Initially under close supervision, incumbents perform a variety of duties related to the integration of all geographically referenced data throughout the City, including development, design, operation, analysis, maintenance and modification of applications and databases; and application of technical, analytical, communication, and problem-solving skills to the processes for assigned information technology services. Work is typically reviewed upon completion for soundness, appropriateness, and conformity to policy and requirements. Positions at this level usually perform most of the duties required of the positions at Level II but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods. Work is usually supervised while in progress and fits an established structure or pattern. Exceptions or changes in procedures are explained in detail as they arise. As experience is gained, assignments become more varied and are performed with greater independence.

GEOGRAPHIC INFORMATION SYSTEMS ANALYST II
This is the journey-level class within the Geographic Information Systems Analyst series. Positions at this level are distinguished from Level I by the complexity of duties, depth of responsibility, independence exercised, level of supervision received, and expertise. An employee in this position may train lower-level staff while providing advanced functional and technical support. This classification will often lead complex projects and systems implementations, with work being reviewed primarily for soundness and appropriateness. An employee at this level independently designs and implements complex systems and leads larger projects while setting objectives, timelines, and methods with greater autonomy. New and challenging situations can be handled independently by utilizing expertise in multiple areas. 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 of assigned projects and programs.

Positions in the Geographic Information Systems Analyst series are flexibly staffed and positions at Level II are normally filled by advancement from Level I; progression to Level II is subject to management approval and is dependent on the incumbent (i) performing the full range of duties assigned to the II level and (ii) acquiring the knowledge, skills, and experience necessary to meet the minimum qualifications for the II level of the series.

This classification is distinguished from Senior Geographic Information Analyst in that the latter is responsible for technical and functional supervision of lower-level staff and is capable of performing the most complex duties assigned to the series. This classification is further distinguished from the Enterprise Applications Support Specialist I/II in that the latter provides expert analysis, support, and coordination of various citywide business software programs.

Examples of typical job functions (illustrative only)

Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.

- Recommends improvements and modifications and prepares various reports on activities and projects; recommends and assists in the implementation of goals, objectives, policies and procedures.
- Consults with other City departments regarding GIS needs and requirements, including identifying, designing and developing GIS applications, strategies, and procedures for integrating the GIS program.
- Serves as technical lead for assigned projects, including working with vendors, contractors, staff, and others.
- Assists staff to develop and maintain related equipment, including custom applications and training staff in the proper use of related equipment.
- Conducts spatial analysis using GIS tools to identify patterns, trends, and relationships in geographic data.
- Performs geostatistical analysis, including interpolation, clustering, and spatial regression.
- Develops and implements applications to extract, transform, and report data used for business process analysis and decision-making.
- Ensures spatial data accuracy and integrity through quality control and documentation practices.
- Monitors changes in technology and applications, recommends improvements and upgrades and implements changes after approval.
- Performs research activities to identify, acquire, and integrate data from other agencies and organizations into the City's data library; maintains and updates the City's information catalogue; creates and maintains government-compliant metadata; and recommends on procedures to share appropriate data.
- Participates in the development and evaluation of requests for proposals and qualifications for professional services; recommends project awards; participates in negotiations of contract terms and amendments; ensures contractor compliance with City standards and specifications and time and budget estimates; and assists with review of design documents to ensure technical integrity.
- Represents the City in inter-agency coordination activities related to GIS.
- Performs other duties as assigned.

Qualifications

Knowledge of

GEOGRAPHIC INFORMATION SYSTEMS ANALYST I
- Principles, practices, and methods of administering and coordinating a comprehensive information system/program.
- Modern procedures, principles, and commands related to GIS database design, analysis, and programming.
- Principles and practices of geographic information systems, cartography, including graphic design, data management and analysis.
- Geographic information and related computer systems including Esri and other related software.
- Topologically structured data for integrating spatially-referenced data from a wide variety of sources.
- Coordination of systems, map projections, and geographic datum transformations.
- Theories and techniques of GIS applications and web mapping technology.
- The organization and operation of the City and of outside agencies as necessary to assume assigned responsibilities.
- Troubleshooting, configuration, and installation techniques.
- Departmental policies and procedures.
- Principles of record keeping.
- Modern office practices, methods, and computer equipment and applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with staff, vendors, contractors, and the public.

GEOGRAPHIC INFORMATION SYSTEMS ANALYST II (in addition to the above requirements)
- Advanced data management theory, principles, and practices and their application to GIS services and programs.
- Technology, hardware, software, and current applications related to GIS systems, including database management, mapping and report generation, and desktop publishing systems.
- Basic computer programming to generate tools or scripts to automate repetitive tasks.
- Data management theory, quantitative analysis and their application to a wide variety of services and programs.

- Principles and practices of identifying technology needs and issues, researching and evaluating technology, applications and the most effective courses of action and implementing solutions.
- Applicable laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.

Ability to

GEOGRAPHIC INFORMATION SYSTEMS ANALYST I
- Utilize geospatial and adjacent analytical software to compile data, generate maps and reports, and perform related tasks.
- Digitize drawings and input them into the GIS database, following a standard procedure.
- Generate custom maps to meet specific customer requirements; research and respond to customer requests for information.
- Analyze and evaluate geo-spatial data and ensure GIS data is accurate and reliable.
- Recommend and implement goals, objectives, practices, policies, and procedures for providing effective and efficient services.
- Perform basic analyses of informational requirements and needs, identify problems, provide technical advice and consultation, and ensure efficient computer system utilization.
- Work cross-functionally with engineers, urban designers and planners to expand the City's GIS analytics capabilities including Esri's integrated GIS solutions, for data collection, analysis, and public engagement
- Understand and communicate ideas in a technical but user-friendly language.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and software programs.
- Use tact, initiative, prudence, and independent judgment within general policy and legal guidelines.
- Use English effectively to communicate in person, over the telephone, and in writing.
- Make accurate arithmetic, financial, and statistical computations.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

GEOGRAPHIC INFORMATION SYSTEMS ANALYST II (in addition to the above requirements)
- Coordinate a broad-based GIS program that includes effective database development, management and accessibility.
- Perform complex modeling, mapping, database maintenance, and other GIS professional-level tasks.
- Evaluate and develop improvements in operations, procedures, policies, or methods.
- Research and evaluate new service delivery methods, procedures, and techniques.
- Prepare clear, effective, and accurate reports, correspondence, and other written materials.
- Interpret, apply, explain, and ensure compliance with departmental policies and procedures.
- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Develop GIS best practices, policies, procedures and technical documentation and train end users.

Education and experience

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:
- Equivalent to graduation from an accredited four-year college or university with major course work in geographic information systems, computer science, business administration or a related field.
- Geographic Information Systems Analyst I: One (1) year of experience working with Geographic Information Systems.
- Geographic Information Systems Analyst II: Three (3) years of experience working with Geographic Information Systems with an emphasis on municipal land management, community development or public works systems.
- Additional qualifying experience may substitute for up to two (2) years of the required education.

Licenses and certifications

- Possession of a Geographic Information Systems Professional (GISP) certification is desirable.

Physical demands

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; vision to read printed materials and a computer screen; and hearing and speech to communicate in person and over the telephone. Standing in and walking between work areas is frequently required. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification frequently bend, stoop, kneel, and reach to perform assigned duties, as well as push and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects up to 30 pounds with the use of proper equipment.

Environmental elements

Employees work in an office environment with moderate levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.