Date Revised: January 25, 2022

GIS MANAGER

Job Code: 22
Exempt: Yes
Safety Classification: Non Safety
Department: Information Technology
Reports To: Technology Director
Location: Washington County Courthouse

SUMMARY:

The GIS Manager directs, coordinates, and monitors Washington County's Geographic Information System (GIS) activities in the County Judge's Office, Assessor's Office, Sheriff's Office, the Department of Emergency Management, the County Clerk's Office, the Road Department, and the Planning Department. The position creates a clear vision for enterprise GIS development to support the GIS goals of the County. Other duties involve the implementation of new GIS solutions, participation in the creation and or maintenance of policies, standards, baselines, guidelines and procedures pertaining to GIS. Relies on extensive experience and judgment to plan and accomplish goals. May provide consultation and is considered to be the top-level contributor/specialist. Works with elected officials to set GIS priorities. Expected to be fully aware of the enterprise's GIS goals as established by its stated policies, procedures and guidelines and to actively work towards upholding those goals. Furthermore, the position also designs and develops mapping applications and geo-processing tools to support GIS. Additionally the incumbent directly supervises 2-3 GIS technicians and insures all county mapping functions are fulfilled. The incumbent coordinates with the Information Technology Director and other Information Technology staff, elected official and department heads, regarding GIS support functions.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

- Creates custom GIS applications to meet specific user needs, ranging from spatial data conversion programs to interface designs that support inexperienced users.
- Participates in the planning and design of enterprise GIS architecture, in coordination with the IT Director and IT Staff.
- Understands customer requirements and develops GIS applications, GIS mapping responsibilities, countywide mapping functions, and automation tools to meet the County's business needs.
- Creates and maintain process automation related to data maintenance.
- Develops and maintain geospatial datasets.
- Maintains GIS software programs for County Offices.

- Responsible for GIS Analysis, GIS Modeling, Data Integration & Conversion, Geocoding, and Geomatics.
- Responsible for supervising a team of 2-3 GIS technicians in multiple offices, including work assignments, delegation and oversight.
- Serves as subject matter expert on GIS and assures effective communication of GIS system issues.
- Analyzes problems and recommends solutions to meet standards and guidelines; prepares special and recurring reports and proposals for work projects, contracts, and GIS development plans.
- Analyzes spatial data to discover patterns and trends through the use of ESRI software.
- Recommends new GIS technologies and techniques for application development.
- Mentors Junior and Mid-level GIS team members to ensure skills transfer for systems under this position's oversight.
- Serves as final tier of internal support escalation for GIS Systems.
- Leads large scale GIS projects for the IT Department under the guidance of the IT Director and IT Project Manager.
- Conducts use-case analysis of business functions to establish GIS application requirements and geospatial data model requirements.
- Participates in the creation of enterprise GIS documents (policies, standards, baselines, guidelines and procedures) in coordination with the IT.
- Develops mapping applications and tools.
- Provides quality assurance/quality control (QA/QC) of GIS data entry and related GIS application integration.
- Produces reports that utilize geographic data.
- Attend GIS and, attend conferences as an attendee and speaker, and participate in Northwest Arkansas Regional Planning meetings.
- Performs simple to complex spatial analysis to assist with information gathering and decision-making, including the ability to create and run models in ArcGIS, write scripts using Python, and perform network and 3D analysis.
- Provides technical assistance and support for GIS users, including troubleshooting, diagnostics, problem resolution and general question response.
- Develops web mapping applications and geo-processing tools to support GIS.
- Conducts end user training and develop end user documentation, which may include classroom and face to face training.
- Manages special projects, which may include prioritizing, training and guiding other employees in the County.
- Coordinates with other governmental entities to ensure compatibility of data, and compliance with regional and state standards.
- Meets with supervisors, vendors, and others to solicit cooperation and resolve problems.
- Responds in a courteous and professional manner to requests for information and services from
- County staff, citizens, other governmental agencies, businesses, and non-profit organizations.

- Independent judgment, discretion and due diligence must be consistently exercised in the performance of the job duties and responsibilities. Maintain confidentiality of information as appropriate.
- Carries out duties independently with little to no supervision.
- Perform any other related duties as required or assigned.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty mentioned satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required.

EDUCATION AND EXPERIENCE

Bachelor's Degree in Geographic Information Systems, Computer Science, Geography, Surveying, and Engineering or related field, plus (8) years of experience. Three years of experience in the use of ArcGIS Desktop and its related extensions and relational databases. 5 years of management and supervisory experience over multiple member staff preferred. Proficiency with Python and other front end design languages such as HTML, and CSS is also preferred. One year of project management experience with budget responsibilities must be included in the three years of experience. Broad knowledge of such fields as computer programming, systems, GIS Systems. Spatial analysis, etc.

Thorough understanding of project/program management techniques and methods. The incumbent for this position would example outstanding leadership and organizational skills, excellent communication skills and excellent problem solving skills.

Must be able to organize work so as to work with limited supervision and use own judgment to resolve problems in a timely and proficient manner. Knowledge of computer terminology and a need for accuracy and attention to detail is required. Good communication and problem solving skills as well as analytical ability are necessary. Machine skills include computer, printers, imaging computer systems, fax machine, copier and calculator.

PREFERRED CERTIFICATES, LICENSES, REGISTRATIONS

ESRI ArcGIS Enterprise Administration, ESRI ArcGIS Geodata Management, and ESRI ArcGIS Desktop Professional.

SOFTWARE SKILLS REQUIRED

Advanced: Database, Other, Programming Languages
Basic: Alphanumeric Data Entry, Word Processing/Typing

COMMUNICATION SKILLS

Ability to write reports, business correspondence, and policy/procedure manuals; Ability to effectively present information and respond to questions from groups of managers, clients, customers, and the general public. Ability to read, analyze, and understand common scientific and technical journals, financial reports, and legal documents; Ability to respond to complex or difficult inquiries or complaints from customers, regulatory agencies, or members of the business

community.

INITIATIVE AND INGENUITY
SUPERVISION RECEIVED
Under direction where a definite objective is set up and the employee plans and arranges own work, referring only unusual cases to supervisor.
PLANNING
Considerable responsibility with regard to general assignments in planning time, method, manner, and/or sequence of performance of own work, in addition, the work operations of a group of employees, all performing basically the same type of work.
DECISION MAKING
Performs work operations which permit frequent opportunity for decision-making of minor importance and also frequent opportunity for decision-making of major importance, either of which would affect the work operations of small organizational component and the organization's clientele.

MATHEMATICAL SKILL
Ability to work with mathematical concepts such as probability and statistical inference, and fundamentals of plane, algebra, solid geometry and trigonometry.

CRITICAL THINKING SKILLS
Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

SOFTWARE SKILLS REQUIRED
Intermediate: 10-Key, Accounting, Alphanumeric Data Entry, Spreadsheet, Word Processing/Typing
Basic: Contact Management, Presentation/PowerPoint
Advanced: Must possess strong computer skills with understanding of Command Line. 3+ years professional experience in GIS application design, development, and implementation. Fluency in ESRI products and technology. Experience with back-end development utilizing technologies including .Net and SQL Server. Understanding of application architecture best-practices and current County GIS Mapping Platform.

MENTAL DEMAND
Intense mental demand. Operations requiring sustained directed thinking to analyze, solve, or plan highly variable, administrative, professional, or technical tasks involving complex problems or mechanisms.

ANALYTICAL ABILITY / PROBLEM SOLVING
Oversight. Activities covered by expansive policies and objectives, and oversight as to execution and review. High order of analytical, interpretative, and constructive thinking in varied situations covering multiple areas of the organization.

SUPERVISORY RESPONSIBILITIES

Carries out supervisory responsibilities in accordance with the organization's policies and applicable laws. Responsibilities may include but not limited to interviewing, hiring and training employees; planning, assigning and directing work; appraising performance, rewarding and disciplining employees; addressing complaints and resolving problems.

Supervises a small group (3-7) of employees, usually of lower classifications. Assigns and checks work; assists and instructs as required and performs same work as those supervised, or closely related work, a portion of the time. Content of the work supervised is of non-technical nature, but presents numerous situations to which policies and precedents must be interpreted and applied.

RESPONSIBILITY FOR FUNDS, PROPERTY and EQUIPMENT

Regularly responsible for funds, building premises, inventory, or other property owned, controlled, or leased by the organization and, in addition, may have temporary custody and responsibility of patron property, which through carelessness, error, loss, theft, misappropriation, or similar action would result in very important monetary losses to the organization. The total value for the above would range from $1,000,000 to $10,000,000.

ACCURACY

Probable errors would normally not be detected in succeeding operations and could possibly affect organization-patron relationship, involve re-work, or additional expenditures in order to properly resolve the error. The possibility of such errors would occur quite frequently in performance of the job. May also cause inaccuracies or incomplete information that would be used in other segments of the organization as a basis for making subsequent decisions, plans, or actions.

ACCOUNTABILITY

FREEDOM TO ACT

Moderately directed. Freedom to act is given by upper level management guided by general policies and objectives that are reviewed by top management.

ANNUAL MONETARY IMPACT

The amount of annual dollars generated based on the job's essential duties / responsibilities. Examples would include direct dollar generation, departmental budget, proper handling of organization funds, expense control, savings from new techniques or reduction in manpower. Very small. Job creates a monetary impact for the organization up to an annual level of $100,000.

IMPACT ON END RESULTS

Moderate impact. Job has a definite impact on the organization's end results. Participates with others in taking action for a department and/or total organization.

PUBLIC CONTACT

Regular contacts with patrons where the contacts are initiated by the employee. Involves both furnishing and obtaining information and, also, attempting to influence the decisions of those persons contacted. Contacts of considerable importance and of such nature, that failure to exercise proper judgment may result in important tangible or intangible losses to the organization.

EMPLOYEE CONTACT
Contacts with other departments or offices and also frequently with individuals in middle level positions; consulting on problems which necessitate judgment and tact in presentation to obtain cooperation or approval of action to be taken. Also, important contacts with associates as required in advanced supervisory jobs, plus frequent contact with senior level internal officials.

USE OF MACHINES, EQUIPMENT AND/OR COMPUTERS
Network engineering and support, telecom engineering/support and comprehensive management of computer applications/programming and analysis, tech lead, database analyst iii, policy lead, staff, development/implementation and/or program manager.

Computer senior software programming, debug problem detection, senior database analyst, Network development, and senior project manager.

WORKING CONDITIONS
Periodically exposed to such elements as noise, intermittent standing, walking, pushing, carrying, or lifting; but none are present to the extent of being disagreeable.

ENVIRONMENTAL CONDITIONS
The following work environment characteristics described here are representative of those an employee encounters while performing essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

 The noise level in the work environment is usually moderate.

PHYSICAL ACTIVITIES
The following physical activities 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 and expectations.

Moderate diversity, low physical. Work activities which allow for a moderate amount of diversity in the performance of tasks which are not as varied as those positions with high-level diversity and decision-making.

While performing the functions of this job, the employee is regularly required to stand, sit, use hands to finger, handle, or feel, talk or hear; frequently required to reach with hands and arms, stoop, kneel, crouch, or crawl; and occasionally required to walk, climb or balance. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision; color vision; peripheral vision; and ability to adjust focus.

SIGNATURE SECTION:

This job description has been approved by all levels of management:

HR Director: _____

Employee signature below constitutes employee's understanding of the requirements, essential functions, and duties of the position.

Employee_____Date_____