RUTHERFORD COUNTY, TENNESSEE
CLASSIFICATION SPECIFICATION

CLASSIFICATION TITLE:	**GIS ANALYST - GENERALIST**
FLSA STATUS:	**NON-EXEMPT COMPUTER PROFESSIONAL**
SAFETY SENSITIVE:	**SUBJECT TO RANDOM DRUG AND BREATH ALCOHOL TESTING**

PURPOSE OF CLASSIFICATION

This is a senior level GIS analyst position with Rutherford County Office of Information Technology (OIT) GIS Division. Performs analytical, technical, and administrative work in the planning, implementation, and maintenance of Rutherford County's Enterprise GIS system. This is a high-level technical position able to perform complex computerized and GIS mapping tasks requiring considerable skill, independent judgement, and specialized experience and knowledge of GIS applications, concepts, and database application design principles. Under direction may act as a GIS project lead. Unmanned Aerial Vehicle (UAV) operations are also required. Reports to GIS Manager.

ESSENTIAL FUNCTIONS

The following duties are normal for this position. The omission of specific statements of the duties does not exclude them from the classification if the work is similar, related, or a logical assignment for this classification. Other duties may be required and assigned.

Conduct use-case analysis of business functions to establish GIS application requirements and geospatial data model requirements for customers

Develop mapping applications and tools, including GIS web application development

Coordinate upgrades (planning, development, user testing, implementation) of GIS web applications/desktop extensions to keep pace with current platform version

Perform data modeling and integration with the spatial layers

Perform quality control processes on GIS data and attribute information

Plan on communicate specific work tasks for database creation and management application development, and ongoing maintenance.

Lead project to standardize addressing across Rutherford County's GIS Enterprise platform.

Develop and maintain governance strategies for Rutherford County's GIS Enterprise platform.

Prepare technical documentation including data specifications, user requirements, and procedures.

Creation of 2D and 3D maps using ArcGIS Pro, ArcMap, UAV data, and ArcGIS Online.

Manage a digital library of geographic maps in various file types.

Produce maps showing the spatial distribution of various kinds of data.

Produce reports on geographic data utilizing data visualizations.

Perform complex spatial analysis of both vector and raster datasets.

Publish and manage data in ArcGIS Online organizational account.

Conduct in-house training and tracking progress on system implementation and application projects.

Provides quality control on data across agencies in a timely manner.

Prepares or completes various forms, reports, correspondence, project design schedules, statistical reports, presentations, spreadsheets, or other documents, such as job proposals.

Creates, maintains, and analyzes data layers.

Assists and previews software and services for other departments that are compatible for GIS System services.

Provides information and technical assistance to users regarding the GIS System and other related issues, departments and agencies with technical support and with the operation of GIS.

Plan, execute, and post-processes UAS-based imagery and ground control into derivatives (i.e., orthophotography and DEM products)

Utilizes ESRI applications such as, Survey123, Collector for ArcGIS, and Dashboard for ArcGIS. Processes GIS and UAS data in a variety of programs, such as ArcMap, ArcGIS Pro, Drone2Map, and Site Scan.

Delegates projects to GIS Technicians and ensures the projects are implemented.

Directs and supervises work for Part-time GIS workers.

Runs quality control on GIS workers data entry through reconcile and post reports, queries, and program checks.

Holds a part 107 FAA sUAS license to operate UAVs as needed by the county.

Communicates with supervisor, employees, and other departments as needed to coordinate work activities, exchange information, or resolve problems.

Must work hours as scheduled.

Completes work at assigned workstation as determined by supervisor.

Operates a county vehicle

ADDITIONAL FUNCTIONS

Produces maps as needed for internal and external customers including operation of a large format plotter.

Relieves other Information Technology (IT) personnel as needed

Maintains an awareness of new technologies, programs, equipment, trends, and advances in the field; reads professional manuals and publications to increase knowledge of GIS; reviews technical manuals, publications, and documentation; attends workshops and training sessions as appropriate

Communicates the details of all projects to the supervisor; acquires approval from supervisor for all projects that are large or require budgetary involvement.

Performs other related duties as required

MINIMUM QUALIFICATIONS

Bachelor's Degree in Geography, Information Systems, Data Processing, or Computer Operations; supplemented by three (3) years previous experience in GIS and/or training involving GIS using ESRI's Desktop, Portal, ArcGIS Pro, Server platform and products; or any equivalent combination of education, training, and experience which provides the requisite knowledge, skills, and abilities required for the job. Must maintain and possess a valid Tennessee driver's license. Special Assignments may require a background check and fingerprinting. GISP (GIS Professional certification) preferred, Master's Degree in related field, UAV experience and/or Part 107 FAA certification preferred.

PERFORMANCE APTITUDES

Color Discrimination: Must require the ability to differentiate colors and shades of color for interpreting GIS system.

Data Utilization: Requires the ability to evaluate, audit, deduce, and/or assess data using established criteria. Includes exercising discretion in determining actual or probable consequences and in referencing such evaluation to identify and select alternatives.

Environmental Factors: Performance of essential functions may require exposure to adverse environmental conditions, such as machinery or electric currents.

Equipment, Machinery, Tools, and Materials Utilization: Requires the ability to operate and control the actions of equipment, machinery, tools and/or materials requiring complex and rapid adjustments.

Form/Spatial Aptitude: Requires the ability to inspect items for proper length, width, and shape.

Functional Reasoning: Requires the ability to apply principles of influence systems, such as motivation, incentive

and leadership, and to exercise independent judgment to apply facts and principles for developing approaches and techniques to resolve problems.

Intelligence: Requires the ability to learn and understand relatively complex principles and techniques; to make independent judgments in absence of supervision; to acquire knowledge to topics related to primary occupations.

Interpersonal Communication: Requires the ability to provide guidance, assistance, and/or interpretation to others regarding the application of procedures and standards to specific situations. Requires ability of speaking and/or signaling people to convey or exchange information. Includes giving assignments and/or directions to co-workers or assistants. Must be able to communicate effectively in a variety of administrative, legal, or professional languages, including terminology, related to property assessment/appraisal.

Language Ability: Requires ability to read a variety of informational documents, directions, instructions, and methods and procedures. Requires the ability to speak with and before others with poise, voice control, and confidence using correct English and well-modulated voice.

Manual Dexterity: Requires the ability to handle a variety of items, equipment, control knobs, switches, etc. Must have the ability to use one hand in a twisting or turning motion while coordinating other hand with different activities. Must have moderate levels of eye/hand/foot coordination. This includes complex flight mechanics of UAV operation.

Mathematical Aptitude: Requires the ability to perform addition, subtraction, multiplication, and division; the ability to calculate decimals and percentages; the ability to utilize principles of fractions; and the ability to interpret graphs.

Motor Coordination: Requires the ability utilize fine hand-eye coordination to perform various tasks.

Physical Ability: Tasks may require the ability to operate a variety of machinery and equipment, which includes a computer, printer, copy machine and telephone. Tasks also require the ability to exert moderate, though not constant physical effort, typically involving some combination of climbing and balancing, stooping, kneeling, crouching, and crawling, and which may involve some lifting, carrying, pushing and/or pulling of objects and materials of moderate weight (15-30 pounds) and occasionally heavy weight (31-50 pounds).

Physical Communication: Requires the ability to talk and/or hear, talking-expressing or exchanging ideas by means of spoken words, hearing-perceiving nature of sounds by ear.

Sensory Requirements: Some tasks require the ability to perceive and discriminate visual cues or signals. Some tasks require the ability to communicate orally either face to face or by radio.

Situational Reasoning: Requires the ability to exercise judgment, decisiveness and creativity in situations involving the evaluation of information against sensory, judgmental, or subjective criteria, as opposed to that which is clearly measurable or verifiable.

PHYSICAL DEMANDS ANALYSIS

1. **STANDING AND WALKING**
   Tasks: Standing and Walking
   in operations of UAVs
   Surface: Outdoors, typically level ground
   Estimated Total Hours: 1-2 hours **Maximum Continuous Time:** 1 hour

2. **SITTING**
   Tasks: Working at computer terminal
   Estimated Total Hours: 5-6 hours **Maximum Continuous Time:** 2-3 hours

3. **LIFTING/CARRYING**
   Objects: Servers, PC towers, monitors, switches, routers, UAVs, Ground Control Points

Weight	Hourly	Daily	Weekly	Monthly	Never
<10 lbs	X				
11-25 lbs		X			
26-50 lbs				X	
51-75 lbs					X
76-100 lbs					X
>100 lbs					X

4. **PUSHING/PULLING**
   Objects: Pushing/Pulling UAV cases

   Height of hands above floor during push: 3 feet

5. **CLIMBING**
   Tasks: Climbing on ladders to work on server racks, or look at cabling very occasionally
   Device: Ladder
   Height: 6 ft
   Frequency: Once a quarter

6. **BENDING/SQUATTING/KNEELING**
   Tasks: Working with UAVs
   Frequency: 2-5 times a week

7. **REACHING**
   Hands Used: RIGHT   LEFT   BOTH **X**

Distance	Direction	Frequency	Duration	Avg. Weight
0-20"	All	Monthly	20 min	20 lbs
21-36"	All	Monthly	20 min	20 lbs

8. **WORK CONDITIONS**

Exposure to	Yes	No
Hot Temperatures	X	
Cold Temperatures	X	
Sudden Changes in Temperature	X	
Noise	X	
Fumes		X
Cramped Quarters		X
Cold Surfaces		X
Hot Surfaces		X
Sharp Edges	X	
Vibration		X
Fluorescent Lighting	X	
Computer Monitor Screen Glare	X	

Inside Building	80 % of time
Outside	20 % of time

9. **OTHER JOB DEMANDS**

Does Job Require	Yes	No
Crawling	X	
Jumping		X
Lying on Back	X	
Lying on Stomach	X	
Twisting	X	
Sweeping/Mopping		X
General Cleaning	X	
Handling Trash	X	

10. **LIST TOOLS, EQUIPMENT AND MATERIALS USED**

Basic hand tools, UAV maintenance equipment, charging high capacity Li-Po batteries, large format plotter

11. **HAND USE**

Type of Use	Yes	No	Frequency
Keystrokes	X		
Grasp	X		
Fine Motor i.e.: writing, twisting hands or wrist, etc.	X		

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Rutherford County, Tennessee, is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the County will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer. Signatures below indicate the receipt and review of this classification description by the employee assigned to the position and the immediate supervisor.

_____   _____

Employee Full Legal Name (printed)   Employee's Signature   Date