GIS ANALYST
LAND INFORMATION DEPARTMENT

I.   PURPOSE OF POSITION

The purpose of the position is to adapt, prepare, analyze and maintain Geographical Information Systems (GIS) and Global Positioning Systems (GPS) data and integrate this information into the County Enterprise GIS database, perform other spatial analysis, and generate report and map products. In addition, this position implements applications for field GPS data collection and conducts field GPS data collection.

II.   ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Adapt, prepare, analyze and maintain GIS and GPS data using ESRI ArcMap Desktop, Spatial Analyst, 3D Analyst, and ArcGIS Online software products and custom applications.
2. Participate in the process of establishing points of integration between the County Enterprise GIS and Land Records System as prescribed by the Land Records Modernization Plan.
3. Participate in development of County GIS, acting as the Land Information Department's liaison with other departments as required.
4. Assist and train County staff in the use of GIS and GPS hardware, software, applications, and data.
5. Research, development, and implementation of new technology solutions for conducting County business using field collection and in office solutions.
6. Create complete and well-developed Enterprise GIS databases.
7. Conduct GPS hardware maintenance and software updates.
8. Document GIS and GPS related projects, procedures, techniques, and methodologies to be used in creating Federal Geographic Data Committee compliant metadata and data dictionaries.
9. Participate in E911 mapping problem resolution and updates to mobile mapping software.

III.   KNOWLEDGE, SKILLS AND ABILITIES

1. Knowledge of Windows operating system, Microsoft Office, electronic mail and Internet skills.
2. Advanced knowledge of the County's Enterprise GIS software (ESRI ArcMap Desktop, Spatial Analyst, 3D Analyst, and ArcGIS Online).
3. Knowledge of Microsoft SQL Server database management and administration for relational databases and of the geodatabase in an ArcSDE environment.
4. Ability to effectively use ArcGIS software's built-in tools and scripting language to evaluate, edit, modify, and develop custom tools, interfaces, and applications.
5. Ability to integrate complex GIS and non-GIS databases to support business needs.
6. Ability to integrate, attribute, and organize GPS collected field data into well-organized and functional GIS databases that are to be integrated into the County Enterprise GIS system.
7. Understanding of complex GIS data sets and business needs as they relate to Land Records management, road centerline management, and address management.
8. Advanced knowledge of coordinate systems, global positioning systems and standard mapping principles.
9. Ability to define problems, collect data, establish facts, and draw valid conclusions.
10. Ability to setup and maintain long term GPS data collection projects.
11. Ability to organize and/or participate in projects relating to GIS that are multi-departmental and/or with outside Government Agencies, Private Companies, and/or the University system.
12. Ability to work independently and with minimal direction.

IV.   MINIMUM TRAINING AND EXPERIENCE REQUIRED TO PERFORM ESSENTIAL JOB FUNCTIONS

1. Bachelor's Degree in Geography, Cartography or related field, GIS training, one or two years GIS experience, or any combination of education and experience that provides the equivalent knowledge, skills and experiences.
2. Minimum of two years experience using GPS equipment and data.
3. Two years experience working with using ESRI ArcGIS Desktop, Spatial Analyst, and 3D Analyst software.
4. Experience using Microsoft SQL Server and ESRI ArcSDE for SQL Server a plus.

V.   LANGUAGE ABILITY AND INTERPERSONAL COMMUNICATION

1. Ability to analyze data and information using established criteria to determine consequences and to identify and select alternative methodologies.
2. Ability to compare, count, differentiate, measure, copy, record, and transcribe data and information.
3. Ability to classify, compute, tabulate and categorize data.
4. Ability to advise and provide interpretation to others how to apply policies, procedures, and standards to specific situations.
5. Ability to utilize a variety of advisory data and information such as transportation and other base maps, County Land Records Modernization Plan, reports, software operating manuals, technical operating manuals, procedures, guidelines and non-routine correspondence.
6. Ability to communicate orally and in writing with the general public as well as other County Departments.

VI.   PHYSICAL REQUIREMENTS

1. Ability to operate equipment such as computers, GPS equipment, plotters, printers, scanners, digital cameras, and general office equipment.
2. Ability to recognize and identify harmonious or contrasting combinations, as well as recognize individual characteristics of colors and shapes associated with job-related objects, materials, and tasks.
3. Ability to perform work from a sedentary position in a normal office setting.
4. Frequent, bending, lifting, twisting, stretching, squatting, sitting, standing, and walking.
5. Visual acuity.
6. Ability to hear normal communication and communicate orally in a clear manner.
7. Good manual dexterity of hands and fingers.
8. Ability to lift/carry/push/pull at least 50 pounds.

The position description should not be interpreted as all-inclusive. The intention is to identify major responsibilities and requirements of this position. There may be requests to perform job-related responsibilities and tasks assigned other than those stated on this description.

8/18