



Job Description Systems Analyst IV- GIS Coordinator

Reports to: Applications Manager
 Department: Information Technology
 FLSA Status: Exempt
 Class Code:
 Pay Grade: 118
 Approved:
 Last Revised: 05-12-2015

BRIEF DESCRIPTION:

The purpose of this position is to develop and maintain GIS data and applications to support and enhance the daily operations of City departments and to provide technical support surrounding all aspects of desktop, mobile, server and internet-based Geographic Information Systems (GIS). This is accomplished by developing applications, database standards and operation routines; providing technical expertise in the installation, testing and upgrading of GIS hardware and software; coordinating new development, modifications, system integration, etc.; as project leader for all GIS web development tasks/systems; providing GIS training and support to staff of all departments; creating/maintaining GIS data for departments without GIS trained staff; maintaining security rights/privileges to GIS data; maintaining all aspects of SQL database in GIS space, including but not limited to , creation of jobs; creating/rebuilding indexes; coordinating data shearing with consultants, other governmental and educational organizations and the general public; establishing and enforcing data standards and metadata creation; act as lead in all GIS operations citywide.

ESSENTIAL FUNCTIONS:

Note: This information is intended to be descriptive of the key responsibilities of the position. The list of essential functions below does not identify all duties performed by any single incumbent in this position. Additionally, please be aware of the legend below when referring to the physical demands of each essential function.

(S) Sedentary	(L) Light	(M) Medium	(H) Heavy	(V) Very Heavy
Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	Exerting up to 20 lbs. occasionally; 10 lbs. frequently; or negligible amounts constantly; OR requires walking or standing to a significant degree.	Exerting 20-50 lbs. occasionally; 10-25 lbs. frequently; or up to 10 lbs. constantly.	Exerting 50-100 lbs. occasionally; 10-25 lbs. frequently; or up to 10-20 lbs. constantly.	Exerting over 100 lbs. occasionally; 50-100 lbs. frequently; or up to 20-50 lbs. constantly.

#	Code	Essential Functions	% of Time
1	S	Administer Enterprise GIS System <ul style="list-style-type: none"> Utilize standard software engineering practices to independently carry out the requirements analysis, specifications definition, software development, testing, documentation and implementation of moderate to highly complex GIS solutions for the City. 	25%



		<ul style="list-style-type: none"> • Install and maintain GIS server, laptop/desktop software and mobile routines. • Enforce GIS database (SQL) and programming standards. • Manage the GIS system programming, database and modeling. • Develop custom scripts/programs to automate repetitive task in order to enhance efficiency. • Coordinate data sharing activities between various agencies. • Setup and maintain security model for accessing and editing GIS data. • Ensure that all application software and hardware operates efficiently and meets the City's needs for GIS 	
2	S	Provide Technical Expertise <ul style="list-style-type: none"> • Maintain in-depth and up-to-date technical knowledge of software and hardware toolset. • Provide technical expertise in City GIS implementation and maintenance, database design, and programming. • Interact with organizational staff to expose ways GIS technology can be successfully deployed to further enhance workflows and maximize efficiencies. • Develop and manage support procedures in the most efficient and cost effective manner to provide and maintain adequate resources to support user system requirements. • Perform complex GIS data analysis using advanced tools per requests from all departments, results of which are delivered in report and/or map form. • Research and investigate GIS industry techniques and products. Evaluate and recommend GIS software and hardware systems. • Attend and participate in professional group meetings, seminars, and trainings in order to stay abreast of new trends and innovations in the field of GIS. 	20%
3	S	Coordinate New Development, Modifications, and Integration <ul style="list-style-type: none"> • Coordinate and guide and/or review the work of other GIS programmers/technicians when automating tasks. • Use strong interpersonal skills, extensive technical knowledge and in-depth system analysis and programming skills to effectively plan and supervise implementation of enterprise GIS systems. • Meet with users to review requests. Develop and tailor applications to meet user needs. Prepare documentation as needed. 	20%



		<ul style="list-style-type: none"> Coordinate the integration of COG enterprise GIS with third-party software. 	
4	S	Project Leader for all GIS Web Development <ul style="list-style-type: none"> Develop, install and maintain GIS web applications using ESRI based mapping solutions in HTML5/JavaScript environment. Manage and perform related tasks to ensure the successful implementation of moderate to highly complex GIS solutions completed by other department's GIS technicians, including developing project plans and coordinating development with necessary areas of IT 	15%
5	S	Provide GIS Training and Support <ul style="list-style-type: none"> Provide user training/support and hardware operation and basic support to departments. Work with vendors to coordinate and administer training. Troubleshoot and report internal issues with the GIS web applications and implement and fix any and all issues. Troubleshoot issues submitted by the general public concerning GIS applications/data. Communicate with vendors to resolve any trouble tickets submit regarding their applications/software. 	10%
6	S	Create and Maintain GIS Data <ul style="list-style-type: none"> Oversee creation and maintenance of data for all departments needing assistance, especially those without GIS-trained staff. Develop and maintain technical standards including development of data models, data standards, and systems integration. Prepare and print custom maps based on needs of department or general public. 	10%

REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:

Knowledge of:

- and experience in object oriented programming language preferred.
- and experience in high level programming language.
- relational database systems such as MySQL, MSSQL, and SQL.
- SDLC and Project Management fundamentals.
- SharePoint, InfoPath, converting raw images and layouts into CSS/HTML themes preferred.
- web standards such as W3C and ADA Section 508.
- IIS and FTP data sites
- HTML5/JavaScript
- ArcGIS for Server, ArcSDE, ArcGIS Modeling and Extensions, ArcGIS for Desktop



- Cartographic standards, principles, and procedures
- ArcGIS Online/Portal of ArcGIS including web maps, Collector Application and other Esri local government applications
- Government GIS applications, especially in business areas such as planning, public utilities, transportation, fire, EMS, and City base map creation and maintenance

Skilled in:

- determining how a system should work and how changes in conditions, operations, and the environment will affect outcomes.
- writing computer programs for various purposes.
- written and oral communication necessary for clear and concise communication.
- identifying measures of indicator of system performance and the actions needed to improve or correct performance, relative to the goals of the system.
- using logic and reasoning to identify the strengths and weaknesses of alternative solutions, conclusions or approaches to problems.
- identifying and managing budgets. Manage division expenditures; assist with budget management and cost control; prepare various fiscal reports, financial summaries, and consolidation reports; prepare various monthly, quarterly, and annual reports as directed
- development of schedules and managing complex GIS projects – familiarity with business process analysis as it relates to GIS.
- researching, compiling, and summarizing statistical data and information materials.
- manipulation and management of relational and non-relational databases

Ability to:

- work independently and to recognize, analyze and solve complex problems
- convert raw images and layouts into CSS/HTML themes preferred.
- combine pieces of information to form general rules or conclusions (includes finding a relationship among seemingly unrelated events).
- tell when something is wrong or is likely to go wrong.
- operate assigned equipment, including computer equipment and various software packages.
- work cooperatively with City officials, other employees, and the general public.
- work safely without presenting a direct threat to self or others.
- perform a broad range of supervisory responsibilities over others.
- communicate technical information in a non-technical manner.
- lead and motivate work teams.
- analyze spatial data by linking tabular information from other enterprise systems.
- maintain and implement map services for Internet and Intranet applications.
- operate assigned equipment, including computer equipment and various software packages.
- work cooperatively with City officials, other employees, and the general public.



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- work safely without presenting a direct threat to self or others.
 - perform a broad range of supervisory responsibilities over others.

**JOB REQUIREMENTS:**

-Description of Minimum Job Requirements-	
Formal Education	Work requires broad knowledge in a general professional or technical field. Knowledge is normally acquired through four years of college resulting in a Bachelor's degree or equivalent.
Experience	Over five years up to and including seven years.
Supervision	No supervisory responsibilities.
Human Collaboration Skills	Decisions regarding implementation of policies may be made. Contact may involve support of controversial positions or the negotiation of sensitive issues or important presentations. Contacts may involve stressful, negative interactions with the public requiring high levels of tact and the ability to respond to aggressive interpersonal interactions.
Freedom to Act	Receives Limited Direction: The employee normally performs the duty assignment according to his or her own judgment, requesting supervisory assistance only when necessary. Special projects are managed with little oversight and assignments may be reviewed upon completion. Performance reviewed periodically.
Technical Skills	Advanced: Work requires advanced skills and knowledge in approaches and systems, which affect the design and implementation of major programs and/or processes organization-wide. Independent judgment and decision-making abilities are necessary to apply technical skills effectively.
Fiscal Responsibility	This job title does have responsibility for monitoring budget/fiscal expenditures for a work unit of less than department size or responsibility for fiscal management of capital project(s).
Reading	Advanced - Ability to read literature, books, reviews, scientific or technical journals, abstracts, financial reports, and/or legal documents. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Math	Advanced - Ability to apply fundamental concepts of theories, work with advanced mathematical operations methods, and functions of real and complex variables. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Writing	Advanced - Ability to write editorials, journals, speeches, manuals, or critiques. Ordinarily, such education is obtained in at the college level or above. However, it may be obtained from experience and self-study.
Certification & Other Requirements	Valid Driver's License (Class C).

**OVERALL PHYSICAL STRENGTH DEMANDS:**

-Physical strength for this position is indicated below with "X"-				
Sedentary X	Light	Medium	Heavy	Very Heavy
Exerting up to 10 lbs. occasionally or negligible weights frequently; sitting most of the time.	Exerting up to 20 lbs. occasionally, 10 lbs. frequently, or negligible amounts constantly OR requires walking or standing to a significant degree.	Exerting 20-50 lbs. occasionally, 10-25 lbs. frequently, or up to 10 lbs. constantly.	Exerting 50-100 lbs. occasionally, 10-25 lbs. frequently, or up to 10-20 lbs. constantly.	Exerting over 100 lbs. occasionally, 50-100 lbs. frequently, or up to 20-50 lbs. constantly.

PHYSICAL DEMANDS:

C Constantly 2/3 or more of the time.	F Frequently From 1/3 to 2/3 of the time.	O Occasionally Up to 1/3 of the time.	R Rarely Less than 1 hour per week.	N Never Never occurs.
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Note: This is intended as a description of the way the job is currently performed. It does not address the potential for accommodation.

-Physical Demand-	-Frequency-	-Brief Description-
Standing	O	communicating with co-workers, making presentations
Sitting	C	desk work, meetings
Walking	O	around work site, to other departments/offices/office equipment
Lifting	O	equipment, files, supplies
Carrying	O	equipment, files, supplies
Pushing/Pulling	O	equipment, file drawers
Reaching	O	for supplies, for files
Handling	F	paperwork
Fine Dexterity	C	computer keyboard, telephone pad
Kneeling	R	filing in lower drawers
Crouching	R	filing in lower drawers, retrieving items from lower shelves/ground
Crawling	R	under equipment
Bending	R	filing in lower drawers, retrieving items from lower shelves/ground, making repairs
Twisting	F	from computer to telephone
Climbing	R	stairs
Balancing	R	On step stool
Vision	C	reading, computer screen
Hearing	C	Communicating with co-workers and on telephone, listening to equipment
Talking	C	Communicating with co-workers/ and on telephone,
Foot Controls	R	driving
Other (specified if applicable)		

**MACHINES, TOOLS, EQUIPMENT, SOFTWARE, AND HARDWARE:**

Computer, keyboard, telephone, GPS equipment, plotter, copier, fax machine

ENVIRONMENTAL FACTORS:

C	F	O	R	N
Continuously	Frequently	Occasionally	Rarely	Never

D	W	M	S	N
Daily	Several Times Per Week	Several Times Per Month	Seasonally	Never

-Health and Safety Factors-	
Mechanical Hazards	N
Chemical Hazards	N
Electrical Hazards	N
Fire Hazards	N
Explosives	N
Communicable Diseases	N
Physical Danger or Abuse	N
Other (see 1 below)	N

-Environmental Factors-	
Respiratory Hazards	N
Extreme Temperatures	N
Noise and Vibration	N
Wetness/Humidity	N
Physical Hazards	N

(1) N/A

PROTECTIVE EQUIPMENT REQUIRED:

None

NON-PHYSICAL DEMANDS:

F	O	R	N
Frequently From 1/3 to 2/3 of the time	Occasionally Up to 1/3 of the time	Rarely Less than 1 hour per week	Never Never occurs

-Description of Non-Physical Demands-	-Frequency-
Time Pressure	F
Emergency Situation	N
Frequent Change of Tasks	F
Irregular Work Schedule/Overtime	R
Performing Multiple Tasks Simultaneously	F
Working Closely with Others as Part of a Team	F
Tedious or Exacting Work	F
Noisy/Distracting Environment	R
Other (see 2 below)	N

(2) N/A

PRIMARY WORK LOCATION:

Office Environment	X	Vehicle	
Warehouse		Outdoors	
Shop		Other (see 3 below)	
Recreation/Neighborhood Center			

(3)N/A



SIGNATURE – REVIEW AND COMMENTS:

I have reviewed this description and understand the requirements and responsibilities of the position.

Signature of Employee

Date

Job Title of Supervisor

Signature of Supervisor

Date

Job Title of Department Head

Signature of Department Head

Date

Comments: _____

The above statements are intended to describe the general nature and level of work being performed by individuals assigned to this position. They are not intended to be an exhaustive list of all responsibilities, duties, and skills required. This description is subject to modification as the needs and requirements of the position change.