CLASS SPECIFICATION
Mapping & GIS Supervisor

FLSA Status: Exempt
Union Representation: Nonrepresented

GENERAL PURPOSE

Under general supervision, plans, organizes and supervises the work of a unit responsible for the development and conversion of engineering maps and records to digitized/electronic formats; develops difficult and complex GIS applications for use by bureau engineering and maintenance staffs; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Mapping & GIS Supervisors are responsible for supervising work of professional and technical staff engaged in developing and maintaining maps and record drawings of the bureau land use, facilities and infrastructure through the use of computer-aided drafting, GIS and other information systems technologies. Incumbents plan, supervise and participate in development of bureau user applications to ensure the timely, efficient and cost effective delivery of land use and zoning, facilities and infrastructure information used extensively by bureau managers and staff for work planning and management purposes.

Mapping & GIS Supervisor is distinguished from GIS applications supervisors in the Bureau of Information Technology by incumbents' focus on the development of user bureau-focused GIS and related software applications, tools and products.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Plans, supervises and evaluates the work of assigned staff; with staff, develops, implements and monitors work plans to achieve bureau and division mission, goals and performance measures; participates in developing and monitoring performance against the biennial division budget; develops, implements and monitors performance against unit goals and objectives and service delivery standards; supervises, participates in developing, recommends and implements plans, policies, systems and procedures applicable to unit responsibilities and to meet City and bureau strategic direction and standards.

2. Plans and evaluates the performance of assigned staff; establishes performance requirements and personal development targets; regularly monitors performance and provides coaching for performance improvement and development; recommends merit increases and other rewards to recognize performance; recommends disciplinary action, up to and including termination, to address

performance deficiencies, in accordance with the City Charter, Code, human resources policies and labor contract agreements, subject to director and City management concurrence.

3. Provides leadership and works with staff to create a high performance, service-oriented work environment that supports the City's and bureau's mission, objectives and service expectations; provides leadership and participates in programs and activities that promote workplace diversity and a positive employee relations environment.

4. Supervises the overall design, management and evaluation of GIS and related information systems programs and activities; supervises development, maintenance and enhancement of engineering maps and record drawings depicting land base, land use, zoning, facilities, pressure zone and other data; supervises and participates in the development, modification, enhancement and upgrading of integrated systems, applications and databases used to perform automated mapping for planning, facilities management and facilities analysis and reporting; sets priorities and schedules and oversees production of standard and specialized maps, drawings, analyses and reports; plans and supervises the conversion of Mylar and AutoCAD maps and as built drawings to GIS for archiving and retrieval purposes.

5. Supervises and participates in the development, modification, enhancement and implementation of bureau GIS and related software applications; supervises and may participate in developing applications and automation tools to enhance end-user GIS services and support.

6. Manages the work of outside consultants, including selection of contractors, negotiation of terms and conditions and authorizing work and work payments; manages and participates in the development and administration of policies and procedures for contract administration, maintenance, security and related matters.

7. Coordinates activities with other divisions, bureaus and outside agencies; confers with bureau managers and employees regarding current and anticipated GIS information and the feasibility of alternative conceptual approaches to meeting requirements; develops and recommends short- and long-term plans for hardware and software upgrades to bureau GIS systems.

8. Supervises development and implementation of bureau drafting and mapping standards and protocols; supervises and may participate in the development of productivity enhancing tools, processes and procedures.

9. Coordinates work activities with other divisions to optimize use of existing hardware and software and to design and evaluate new user systems solutions; works with technical staff of BIT and other bureaus and the GIS Management Committee in the development and enhancement of the corporate GIS database, maintenance of City-wide GIS database integrity and recovery procedures and the prioritization of GIS applications development and enhancement requests.

OTHER DUTIES

1. Supervises a unit providing bureau-wide graphics service.

2. Serves on a variety of committees; may serve as a member of the Citywide GIS Management Committee.

3. Stays abreast of new technologies for the development of maps and databases.

4. Proposes long-term objectives and participates in development of bureau GIS and CAD technology and information; evaluates and tests new applications; recommends the selection of new hardware and software; directs and oversees new systems conversion and implementation.

MINIMUM QUALIFICATIONS

Knowledge of:

1. Principles, practices, methods and techniques applicable to the implementation, management and enhancement of GIS user applications, including functionalities, analytic tools and techniques, operation and quality control and assurance.

2. Applicable programming languages.

3. Computer-aided mapping principles, practices and techniques including attribute data conversion, manipulation and analysis.

4. Principles and practices of database design and administration.

5. Principles, practices and techniques of information systems management, including applications design, hardware and software options for engineering and operations applications and the cost-benefit of systems alternatives.

6. Operating principles, parameters, methods, practices and limitations of mid-range computers and PCs.

7. Internet technology, tools, languages and protocols applicable to areas of assigned responsibility.

8. Methods and techniques of project management as applied to computer systems development, installation and coordination.

9. Systems analysis methods and techniques.

10. Global positioning survey concepts and analytical techniques.

11. Principles and practices of public administration, including budgeting, purchasing and record keeping requirements.

12. Bureau planning, engineering and facilities management functions and associated information and mapping needs.

13. Principles and practices of sound business communications.

14. Principles and practices of effective supervision.

15. City human resources policies and labor contract provisions.

Ability to:

1. Plan, organize, integrate and supervise the work of professional and technical staff, interns and outside consultants.

2. Manage consultatively with other divisions, bureaus and BIT to accomplish integrated citywide information and mapping services.

3. Establish and maintain project and production schedules.

4. Identify planning, engineering and facilities management issues and information and mapping opportunities.

5. Analyze alternatives for more effective use of mapping products and services and develop sound conclusions and recommendations.

6. Assess user and division productivity requirements, set priorities and allocate resources to most effectively meet needs in a timely manner.

7. Develop and implement appropriate procedures and controls.

8. Prepare clear, concise and accurate reports and other materials.

9. Communicate effectively orally and in writing.

10. Exercise sound independent judgment within general guidelines.

11. Establish and maintain effective working relationships with all levels of management, employees, consultants and others encountered in the course of work.

Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in civil engineering, geographical information systems, computer science or a closely related field; and five years of progressively responsible experience in the design and development of geographic information systems or other equivalent multiple-user, interactive software, at least two of which were as a lead or project manager; or an equivalent combination of training and experience. Experience in a multi-project, engineering environment is highly desirable.

Licenses; Certificates; Special Requirements:

A valid state driver's license may be required for certain assignments.

PHYSICAL AND MENTAL DEMANDS

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

Class History:

Adopted: 07-01-02
Class created as a result of Nonrepresented Classification & Compensation Study, 2000-2002. This class is composed of positions from the following class(es):

3132 CADD MANAGER. Adopted: 02-17-76; Revised: 07-01-92, 10-26-93
2546 INFORMATION SYSTEMS SUPERVISOR. Adopted: 12-16-98

June 2009 - Change Job Class number from 7666 to 30000693, due to system change.