

GEOGRAPHIC INFORMATION SYSTEMS SPECIALIST III

DISTINGUISHING FEATURES OF THE CLASS: Under general supervision, an incumbent of this position, located in the Department of Information Technology, is responsible for the coordination and implementation of Geographic Information Systems (GIS) project initiatives by participating in and supervising the preparation and development of geographic information system applications to support computer mapping and spatial analysis functions, database development, and integration with related geospatial technologies. Considerable independent judgment is exercised in representing the department, as well as in dealing with public officials and federal, state and local agencies. Responsibilities also involve participating in developing long-range planning efforts relating to future system requirements, quality assurance, and in the analysis of project viability. Supervision is exercised over a small number of professional, technical and clerical support personnel. Does related work as required.

EXAMPLES OF WORK: (Illustrative Only)

Supervises and participates in the development, implementation and maintenance of Geographic Information Systems (GIS) for use by county departments and local municipalities;

Meets with county and municipal officials and other agencies to review their existing systems with a view towards integrating them with the county's central GIS;

Monitors ongoing projects to ensure compliance with programming requirements; makes or recommends changes/modifications to ensure compliance with established project objectives;

Supervises conversion and modification of spatial databases developed in systems such as computer aided design (CAD), global positioning system (GPS), mobile mapping and related technologies for compliance and conformity to the county's central GIS database standards;

Analyzes the cost-effectiveness of proposed projects to determine project feasibility; prepares reports on same;

Identifies and make recommendations on future requirements for both desktop and GIS applications;

Tests new software and recommends appropriate action; performs research as needed;

Receives and responds to requests for GIS support by providing technical assistance to users;

Makes presentations to county departments, municipalities and the public to define the practical aspects of GIS applications;

Prepares recommendations on methods to integrate GIS systems with existing county applications;

EXAMPLES OF WORK: (Illustrative Only) (Cont'd)

Reviews existing and incoming data from outside agencies (local, state, federal) for currency, accuracy, quality, documentation and consistency with central GIS database standards;

Reviews existing systems and revises programming language to enable integration with the central Geographic Information System database;

Supports production of GIS cartographic and mapping products (both hardcopy and electronic); determines and verifies designations of cartographic symbols; contributes to web-based mapping applications;

Participates in GIS and planning studies and prepares reports and memoranda including statistical analyses, maps, graphs, tables, etc. for oral and/or written presentation;

Makes formal presentations to staff, consultants, senior management and other related parties as required to communicate on GIS projects' performance or status;

Monitors the performance of work by staff or contractors to ensure compliance with specifications, work programs and budgets;

Uses computer applications or other automated systems such as spreadsheets, word processing, calendar, e-mail and database software in performing work assignments;

Attends conferences, meetings and seminars as assigned;

May perform other incidental tasks, as needed.

FULL PERFORMANCE KNOWLEDGE, SKILLS, ABILITIES AND ATTRIBUTES:

Thorough knowledge of the general principles and techniques of Geographic Information Systems (GIS) as applicable to county, municipal and regional government; good knowledge of ArcGIS (and extensions), and related ESRI GIS software products, as well as current desktop, server and internet systems as related to governmental applications; knowledge of automated mapping standards, Global Positioning Systems (GPS); and mobile mapping technologies; ability to prepare and analyze data in a wide variety of digital formats; ability to reason logically, both inductively and deductively; ability to effectively communicate, both orally and in writing; ability to read, write, speak, understand and communicate sufficiently in English to perform the essential functions of the position; ability to effectively use computer applications such as spreadsheets, word processing, calendar, e-mail and database software; resourcefulness; tact; good judgment; accuracy; thoroughness; initiative; physical condition commensurate with the demands of the position.

MINIMUM ACCEPTABLE TRAINING AND EXPERIENCE: Possession of either: (a) an Associate's Degree* and five years experience where the primary function of the position was utilizing, maintaining and developing geographic information systems (GIS) or related mapping applications in a large governmental agency or private enterprise, one year of which involved GIS systems development; or (b) a Bachelor's Degree* and three years of experience as defined in (a), including the one year of specialized experience; or (c) a Bachelor's Degree* in Urban, Natural Resource or Environmental Planning, Geography, Civil Engineering or Geographic Information Systems and two years of experience as defined in (a), including the one year of specialized experience.

SUBSTITUTIONS: A Master's Degree* in one of the aforementioned fields may be substituted for one year of the required experience. There is no substitution for the one year of specialized experience in GIS systems development.

SPECIAL REQUIREMENTS: Possession of a valid license to operate a motor vehicle in the State of New York will be required at time of appointment and maintain same while in the title.

*SPECIAL NOTE: Education beyond the secondary level must be from an institution recognized or accredited by the Board of Regents of the New York State Department of Education as a post-secondary, degree-granting institution.