

Geographic Information System (GIS) Analyst Tompkins County

Department: Town of Ithaca

Classification: Competitive

Labor Grade: F

Approved: 10/31/19

Revised: 11/13/19

By: LG, Deputy Commissioner of Human Resources

MINIMUM QUALIFICATIONS:

(a) Graduation from a regionally accredited or New York State registered college with a Bachelor's Degree in Geographic Information Systems, cartography, surveying, computer science, engineering or a related field **AND** one year of full-time paid (or the equivalent part-time) professional computer graphic design and web-based application development experience in a public or private planning, engineering, architectural, or similar technical agency using mapping software, computer aided design graphics (CAD) and/or database applications; **OR**

(b) Graduation from a regionally accredited or New York State registered two year college with an Associate's Degree in Geographic Information Systems, cartography, surveying, computer science, engineering or a related field **AND** three years of full-time paid (or the equivalent part-time) professional computer graphic design and web-based application development experience in a public or private planning, engineering, architectural, or similar technical agency using mapping software, computer aided design graphics (CAD) and/or database applications; **OR**

(c) Any combination of training and experience equal to or greater than that described in (a) and (b) above.

Tompkins County is Committed to Equity and Inclusion. We encourage those with similar values to apply.

SPECIAL REQUIREMENT:

Required to possess a valid New York State Driver's License to operate a motor vehicle or otherwise demonstrate the ability to meet the transportation needs of the job.

DISTINGUISHING FEATURES OF THE CLASS:

This position is responsible for the development, maintenance, implementation and analysis of geographic information systems (GIS) products and applications. The incumbent will assist the Director of Engineering with the management and development of specific departmental GIS or related projects. The position will coordinate with departmental staff, other departments, and outside agencies towards the acquisition of data, project design, and spatial data processing functions. Incumbent will be responsible for responding to public inquires and data requests. Responsibilities may include functioning on and leading teams of Department staff, Town staff and representatives from other agencies. Work is performed under the general supervision of the Director of Engineering, with considerable leeway for managing GIS projects for specific departments, planning work methods and procedures to achieve end goals. The position is also responsible for designing, building, implementing, and maintaining Web pages, sites and applications related to the GIS program and other departmental services. Although supervision of others is not a primary function of this position, the incumbent may be called upon to supervise work projects, work groups, and to provide technical supervision and training to staff. This position requires the ability to work with a high degree of autonomy making daily independent judgments in managing and coordinating major projects. The incumbent will perform all related duties as required.

TYPICAL WORK ACTIVITIES:

- Using geographic information system computer software, the incumbent will prepare a variety of analytical and mapping products related to various Town projects and services;
- Management, development, and implementation of online GIS workflows to integrate with third party enterprise wide business systems and improve the user experience of internal and public online GIS applications;
- Assists in the management and development of public safety outputs specifically online applications, map books, and emergency management applications before, during and after an active emergency as requested;
- Acquire or develop, update, and maintain electronic spatial databases, other GIS repository data, and related metadata;
- Prepare analysis of data and geographical maps in support of County/Town projects and programs;

- Apply scientific and statistical methods to obtain, analyze, classify and rectify data to develop and/or modify geo-spatial databases;
- Create a variety of electronic and hard copy map products;
- Performs translation and conversion of data between various data platforms and mapping projection systems;
- Data entry of geographic related material and other materials as required;
- Performs Quality Assurance/Quality Control procedures for data within the GIS program;
- Performs data analysis in support of professional staff activities;
- Responds to other Departments and public requests for digital data and hard copy and digital map products, and the production of custom maps and databases;
- Communicates with a variety of departments, outside organizations and the public to coordinate activities, exchange information, and resolve questions and/or concerns;
- Assists in the coordination of Town-wide GIS web-based mapping services and applications involving the participation of County, municipal and private agencies;
- Develop custom GIS applications for departmental staff, using various GIS programming tools, to automate common analytical mapping procedures;
- Communicate with GIS staff and senior personnel in other departments to coordinate activities, exchange information and resolve questions and/or concerns about GIS data;
- Promotes the use and understanding of GIS programs and related technology through public information and educational campaigns, including public presentations, demonstrations, the writing of articles, and interaction with the community;
- Provides technical GIS and Web content management training to staff within various departments;
- Develop and communicate Web site usage, policies and standards;
- Assists in defining Web site functionality and overall site structure and content management practices;
- Identify and recommend new Web features and applications in conjunction with business leaders, department managers and vendors;
- Assists the Director in the planning and management of Web development projects, including those hosted by vendors and the Town.
- May be required to do field work for collection data to related projects.

KNOWLEDGE, SKILLS, ABILITIES AND PERSONAL CHARACTERISTICS:

- Thorough knowledge of mapping, database and related software necessary to perform and supervise tasks associated with the design, development and maintenance of the GIS program and Web sites and applications;
- Working knowledge of advanced GIS and cartographic concepts and database design concepts;
- Working knowledge of personal computer software and operating systems, including, graphical, database, and spreadsheet applications;
- Ability to establish and maintain high standards of accuracy and produce products with high professional standards;
- Ability to work courteously with the public and staff from other departments and outside organizations;
- Ability to prepare and present ideas clearly and concisely, both orally and in writing;
- Ability to understand and follow complex oral and written instructions;
- Ability to maintain effective working relationships;
- Resourcefulness, initiative, good judgment and tact are required;
- The employee's physical and mental condition shall be commensurate with the demands of the position, either with or without reasonable accommodations.

PHYSICAL, MENTAL, AND ENVIRONMENTAL DEMANDS:

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical

While performing the duties of this job, the employee is frequently required to sit, use hands to keyboard, manipulate controls, and reach with hands and arms. Computer operation requires a considerable level of precision, manual dexterity and operating knowledge/skill in order to be effective. The employee is required to see sufficiently to perform the essential duties. The employee must occasionally lift and/or move up to 10 pounds. Due to extensive computer usage eight hours per day, five days per week, the job requires an extreme level of visual effort. Vision abilities required by this job include extensive work with a video display screens, close vision and the ability to adjust focus close and mid-range.

Mental

Psychological demands are moderate for this position. Considerable interpersonal skills are necessary in order to create connections, obtain buy-in, cooperation with staff. Internal contacts will be with employees at all levels throughout the organization and will require professional collaboration on overlapping projects. External contacts are with professional associates, liaisons, community groups and involve the development of professional networks and the successful implementation of intermunicipal GIS projects.

Environmental

The work is performed almost exclusively in an office environment and the incumbent will have minimal exposure to any disagreeable environmental conditions. The employee often works alone or in proximity to one or more staff. As a result, the work involves only some minimal risk of injury or illness.

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