CLASS TITLE: ENGINEERING GIS SENIOR DATA ANALYST

PURPOSE OF CLASSIFICATION:
Under general supervision, is responsible for utilizing advanced Geographic Information Systems (GIS) tools, models, and high level spatial programming to find innovative, workable solutions to intricate problems involving numerous large datasets, automates workflows utilizing GIS models and high level spatial programming languages, presents information for administrative decision-making on a regular basis, analyzes performance data to ensure efficient Engineering Services GIS operations, and provides high level technical training related to scripting and automating processes, complex labeling, etc., using scripting languages that integrate with GIS software; and other related assigned duties.

ESSENTIAL TASKS:
- Coordinates multiple GIS related projects and provides support and advanced training, including scripting and automation for subordinates and others in the Engineering Services Department
- Uses modeling/programming to perform complex spatial analysis and database queries and solves complex spatial and analytical problems
- Writes scripts that increase the reliability and accuracy of databases used by Engineering Services
- Automates processes using high level programming languages to increase efficiency of Engineering Services operations and increase reliability of department data
- Gives input on schema design for data of record as it relates to Engineering Services
- Evaluates methods to measure section performance or develops new ones where existing ones are lacking
- Analyzes, identifies, and evaluates trends and patterns in operational performance data and presents findings to relevant audiences
- Develops maps considered to be advanced in nature utilizing high level programming language and establishes procedures to automate map production with updated information
- Prepares technical reports and meets with groups outside Engineering Services to advance data and GIS interests
- Leads Engineering Services GIS staff, may plan and review staff performance, provides counseling and guidance for assigned staff, may manage and approve staff timecards
- Develops training and other documentation for users of Engineering Services GIS systems
- Must report to work on a regular and timely basis

Reasonable accommodations may be made to enable individuals with disabilities to perform the essential tasks.

QUALIFICATIONS:
Training and Experience: Completion of 120 hours from an accredited college or university in a field relevant to the essential tasks of this job description, and five (5) years of progressively responsible and technical experience in GIS, including three (3) years of experience in high level spatial programming language.

Knowledge, Abilities and Skills:
Comprehensive knowledge of the use of GIS tools, models, and high level spatial languages to solve intricate spatial and analytical problems; comprehensive knowledge of high level programming languages and modeling to automate processes that increase efficiency of operations; considerable knowledge of engineering practices and mathematics required to perform technical calculations; considerable knowledge of the use and manipulation of remote sensing data; considerable knowledge of the use of database, spreadsheet, and technical software; good knowledge of project management as related to engineering operations; and good knowledge of Structured Query Language (SQL). Ability to work independently and to recognize, analyze and solve complex spatial problems; ability to supervise, plan, evaluate and coordinate the work of others; ability to train others in intermediate to advanced GIS work related to the Engineering Services Department; ability to gather, maintain, and analyze large amounts of data and interpret trends and patterns; ability to edit, organize and present clearly in verbal or written form findings and recommendations; ability to read and interpret complex plans, reports, and schematics; ability to courteously and tactfully communicate with fellow workers, supervisors, other members of the organization, and the public in giving and receiving information.

Physical Requirements:
Physical requirements include arm and hand steadiness and finger dexterity enough to use a keyboard and telephone; Exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force frequently; may be subject to walking, sitting, standing for extended periods, reaching, and bending; and vision, speech, and hearing sufficient to perform the essential tasks.

Licenses and Certifications:
Possession of a valid Oklahoma Class "D" Driver License

WORKING ENVIRONMENT: Working environment is primarily indoors, in an office setting and may require travel to other City facilities.

Class Code: 2073
EEO Code: E-01
Pay Code: EX-44

Group: Clerical and Administrative
Series: Data Processing and Information

Effective Date: December 8, 2021