



Office of Human Resources
Computer Aided Drafting Technician - CE0430

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General Statement of Duties

Performs full performance computer aided drafting (CAD) assignments to create and modify maps and drawings that are spatially accurate and represent technically correct depictions of city projects and infrastructure.

Distinguishing Characteristics

This class performs full performance computer aided drafting assignments. This class is distinguished from the Senior Engineering Associate class that performs a variety of professional assignments that support engineering operations and functions and applies technical engineering knowledge and principles to an area(s) of responsibility.

Essential Duties

Operates CAD software to create, update, and maintain technical, electronic drawings and maps of sewer and storm water systems, transportation infrastructure, and facilities including precise maps and plans.

Creates a variety of engineering drawings using specifications provided by engineers and other available data, prepares detailed drawings for the construction and/or alteration of city infrastructure including evaluating and interpreting survey grading and drainage data, preparing cross-sections, profiles, visual displays, maps, and charts, and combines maps on one scale. .

Obtains record information from a variety of agencies and utilities, researches files, drawings, maps of facilities, and other related information, checks assessor's maps, survey maps, and parcel information for various data, gathers measurements and field notes, and verifies incomplete data in order to complete drawings.

Updates originally recorded engineering drawings, maps, profiles, and plans with new as-built data and edits existing drawings to reflect as-built conditions.

Makes engineering calculations involving elevations and angles related to sewer and sanitary pipe placement to other utility lines.

Supports engineering staff by assisting engineers with research, field inspections, analysis and verification of legal description, and other support duties.

Imports and exports data to and from GIS records.

Organizes and archives old drawings and updates and maintains database records and files.

Creates a variety of custom maps, graphics, and other information.

Performs other related duties as assigned.

Employees may be re-deployed to work in other capacities in their own agencies or in other City agencies to support core functions of the City during a City-wide emergency declared by the Mayor.

Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

Competencies

Attention to Detail – Is thorough when performing work and conscientious about attending to detail.

Oral Communication - Expresses information to individuals or groups effectively; taking into account the audience and nature of the information; makes clear and convincing oral presentations; listens to others, attends to nonverbal cues and responds appropriately.

Problem Solving – Identifies problems; determines accuracy and relevance of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

Reading - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables; applies what is learned from written material to specific situations.

Writing – Writes in a clear, concise, organized, and convincing manner for the intended audience.

Knowledge & Skills

Knowledge of the concepts, principals, theories, and methods related to the research, design, development, or revision of maps, charts, and related cartographic products and photogrammetric and cartographic processing.

Knowledge of the concepts, principles, theories, and methods for describing the location and distribution of land, sea, and air masses including their physical locations, relationships, characteristics, and what the land supports.

Knowledge of the concepts, principles, theories, and methods used in the measurement or determination of land boundaries, distances, elevations, areas, angles, and other features of the earth's surface.

Knowledge of drafting techniques and instruments sufficient to be able accurately complete designs and finalize plans for engineers.

Knowledge of plane surveying, trigonometry and algebra sufficient to be able to check the design of small structures or check other plans, maps, and drawings for accuracy and completeness.

Knowledge of computer aided drafting programs sufficient to be able to provide troubleshooting and resolve system problems.

Level of Supervision Exercised

By position, may perform lead work.

Education Requirement

Associate's Degree in Drafting or a related field.

Experience Requirement

Two (2) years of experience in engineering drafting including experience with computer aided drafting.

Education & Experience Equivalency

One (1) year of the appropriate type and level of experience may be substituted for each required year of post-high school education.

Additional appropriate education may be substituted for the minimum experience requirements.

Licensure & Certification

By position, requires a valid Driver's License at the time of application.

Licenses and certifications must be kept current as a condition of employment.

Working Environment

Subject to many interruptions.

Level of Physical Demand

1-Sedentary (0-10 lbs.)

Physical Demands

(Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs.):

Accommodation: Ability to bring objects into focus.

Color vision: Ability to distinguish and identify different colors.

Depth Perception: Ability to judge distances and space relationships.

Eye/Hand/Foot Coordination: Performing work through using two or more body parts or other devices.

Field of Vision: Ability to sharply detect or perceive objects peripherally.

Fingering: Picking and pinching, through use of fingers or otherwise.

Handling: Seizing, holding, grasping, through use of hands, fingers, or other means.

Hearing: Perceiving and comprehending the nature and direction of sounds.

Lifting: Moving objects weighing no more than 10 pounds from one level to another.

Repetitive motions: Making frequent or continuous movements.

Sitting: Remaining in a stationary position.

Talking: Communicating ideas or exchanging information.

Vision Near Acuity: Ability to perceive or detect objects at 20 inches or less.

Background Check Requirement

Criminal Check

Education Check

Employment Verification

By position, Motor Vehicle Record

Assessment Requirement

None

Probation Period

Six (6) months.

Class Detail

Pay Grade: NE-13

FLSA Code: N

Established Date: 9/21/2018

Established By: LS

Revised Date: 6/25/2023

Revised By: BM

Class History: 6/25/2023- Pay grade revised as a result of CN1774.