

ENGINEERING TECHNICIAN 2

Summary Description:

Under the direct supervision of the Utility Engineer, performs advanced engineering drafting, and GIS and database management related to the operation of the Engineering Division of the Water and Sewer Utility.

Principal Duties and Responsibilities:

Manage and insure the accuracy of the database information stored in the Water and Sewer Utility's Geographical Information System, (GIS).

Maintains the mapped features of the GIS by updating both the spatial and tabular data.

Performs information gathering for the GIS. This work utilizes AutoCAD and the ESRI family of GIS software packages to develop the collection and distribution systems on the base maps, to develop the databases, and to gather the information for the databases.

Maintains various Utility maintenance programs and consults with both the Utility Engineer and Distribution Manager on the updating of these programs.

Use computer aided drafting design (CADD) software to prepare construction plans, drawings, and details for water main and sanitary sewer projects.

Maintain and update existing 1/4 section drawings of sanitary sewer and water main utilities using CADD, and GIS.

Researches, recommends and purchases computer system components for the Utility, including computers, printers, plotters, and networking components.

Maintains various computer equipment, including computers, monitors, and laptops for the Utility by setting up, loading software, installing, maintaining programming.

Insures up to date information is maintained on Distribution Department laptop computers.

Provides computer networking support as directed to all areas of the Utility, including remote facilities with the Utility Engineer as system administrator. This includes wired and wireless networks and networks supported by spread spectrum radio.

Develops and maintains the Utility's web content pages. Recommends and implements changes and improvements to the web system. Insures current and applicable information of the web accessible system. Recommends and implements the Utility's intranet system between facilities.

Works with the GIS Technician and/or GIS Coordinator to implement a GIS based web information system.

Assist the Utility Engineer with project management, including project review and comment, and completes as-built drawings for projects for submittal to the governing agencies.

Research records, maps, project files and other data to obtain data such as location of sanitary sewer, water main and assessment information.

Perform a variety of office related functions, including preparing correspondence, investigating and reconciling assessment and special assessment information, preparing maps, presentation materials, and brochures, preparing and reducing printing materials, and responding to inquiries from contractors, developers, property owners, staff and the general public.

Performs the duties of the Engineering Technician as needed.

Attend seminars and working meetings in order to improve working knowledge and skills.

Operates typical survey equipment of the Department. (i.e. level, GPS, etc.)

Performs such other and additional duties as may be required.

Performs the duties of the Utility Locator specifically locating sanitary sewer, water main, storm sewer and street light cable in areas dictated by Digger's Hotline requests or other inquiries to the Utility during Utility Locator absences or as directed.

Job Specifications:

Ability to use and configure PC compatible computer equipment to access, retrieve, or input information using AutoCAD, civil engineering software, Microsoft Office products, ESRI GIS products, and other standardized software common to the work unit. Ability to assist in planning, organizing, and managing projects requiring coordination with others. Ability to work effectively with contractors, developers, other agencies, and the public. Ability to read and interpret construction drawings, plans, and specifications. Ability to prepare, organize, and maintain office data, reports, and systems. Ability to establish and maintain effective interpersonal relationships with employees, other divisions, and the public; ability to communicate effectively, verbally and in writing. Skill in the operation of equipment common to the work unit. Skill in the application of the knowledge of engineering drafting and drawing to acceptable standards. Ability to read and understand blueprints and drawings. Ability to work independently with occasional review of work performance. Ability to interpret contract and specification requirements of contract construction of public works projects and all private construction done under a development agreement. Ability to research and obtain pertinent information through various resources. Ability to add, subtract, multiply, and divide in all units of measure, using whole numbers, common fractions, and decimals. Understanding of networks and network systems. Ability to create and edit webpages and systems.

This job specification should not be construed to imply that these requirements are the exclusive standards of the position.

Work Conditions/Physical Demands:

Work is performed in office settings but also requires visits to various land developments, construction sites, and all Utility facilities. Must be capable of moving about on construction work sites, including walking on uneven ground, climbing hills, climbing ladders, etc.. The employee must occasionally lift and/or move up to 50 pounds, with or without reasonable accommodation.

While performing the duties of this job, the employee is frequently required to stand; walk; sit; use hands and fingers to handle or feel objects, tools, or controls; reach with hands and arms; climb or balance; stoop, kneel, crouch or crawl; talk and/or hear; and taste or smell.

Education / Experience:

Possession of an associate degree in civil engineering technology or a related field and five years of practical experience, or an equivalent amount of advanced education and experience. Previous experience in civil engineering and public works is desirable. Minimum of five years of experience in drawing plans and specifications while utilizing CADD required.

License / Certifications:

Possession of a valid Wisconsin Motor Vehicle license is preferred.