

UTILITY ENGINEERING SPECIALIST

NATURE OF WORK

This is advanced technical work in connection with engineering in the water, wastewater and solid waste operations of the City.

Work involves the various phases of design, construction, records keeping, and computer related work necessary to plan, construct and record engineering projects. Work responsibilities may include one or more of the following: advanced level manual and/or computer aided drafting under a minimum of supervision; advanced level engineering surveying involving complex utility projects; preparation of preliminary engineering plans and specifications; construction observation; field reports; assisting in the implementation of various provisions of the Lincoln Municipal Code and design standards; beginning level programming for computer graphics mapping; and scheduling, performing and overseeing data collection, tabulation and summary. Limited supervision is received from a technical or administrative superior who reviews results to assure adherence to accepted engineering principles.

EXAMPLES OF WORK PERFORMED

Maintains an up-to-date complete and accurate mapping and records system for sanitary sewer and water systems, including property maps, water valve locations, manhole locations and water and wastewater treatment facilities using Microstation and Arcview CAD systems.

Operates and maintains GPS and GIS systems for Water, Wastewater and Solid Waste operations.

Maintains and provides sewers application database information by entering new sanitary sewer information such as sewer length, slope, plat, drainage basin and year of construction.

Maintains and provides water system application database information by entering new water system information such as size, length, plat and year to construction.

Observes and reports on construction progress on projects to insure compliance with approved plans and specifications; maintains status records of construction projects.

Checks plat survey data for accuracy, conformity to Lincoln Municipal Code, and to ensure sufficiency of data.

Schedules, performs and analyzes various public infrastructure engineering studies, e.g. storm water, wastewater and solid waste and recycling facilities.

Assists in the update of the Comprehensive Plan, Water Master Plan, Wastewater Master Plan and Solid Waste Master Plan.

Prepares preliminary engineering plans and specifications on water, wastewater and solid waste projects as required.

Reviews plans and specifications from outside consultants to ensure quality control standards are followed.

Provides graphic support for other Departments, agencies and the general public; produces specialized maps.

Observes and reports on all phases of complex infrastructure construction for proper drainage, subgrade preparation, pipe laying operations; observes backfilling procedures; locates underground utilities and resolves conflicts between various utilities.

Prepares partial and final cost estimates for review of the various projects at direction of team or project manager using project software program.

Evaluates and reports on system materials.

Performs related work as required.

DESIRABLE KNOWLEDGE, ABILITIES AND SKILLS

Considerable knowledge of ArcView and Microstation

Considerable knowledge of spreadsheet, word processing, data base and e-mail software.

Ability to understand and follow oral and written instructions.

Ability to provide hardware/software support.

Ability to establish and maintain effective working relationships with co-workers and the general public.

Ability to communicate effectively both orally and in writing.

DESIRABLE TRAINING AND EXPERIENCE

Graduation from a senior high school or equivalent supplemented by an associate degree in computer science, drafting or other civil engineering field, the electrical or electronic field; and considerable experience with software installation/upgrade troubleshooting, drafting, surveying and/or related engineering work.

MINIMUM QUALIFICATIONS

Graduation from a senior high school or equivalent supplemented by college level course work in computer science, drafting or other civil engineering field, the electrical or electronic field; and experience with software installation/upgrade troubleshooting, drafting, surveying and/or related engineering work; or any equivalent combination of training and experience which provides the desirable knowledge, abilities and skills.

SPECIAL NECESSARY REQUIREMENTS

Possession of a valid driver's license when operating a vehicle may be necessary to the satisfactory performance of assigned duties for some positions within this classification.

Employees may be required to possess any of the following if required by the position to which assigned.

Novell Netware Administrator experience.

Experience in Visual Basic, Java, HTML (Advanced), MDL and Avenue.

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