

City of Devils Lake

Job Description

Job Title: CADD Technician/GIS Coordinator/Engineering Technician
Department: Engineering
Reports To: City Engineer
FLSA Status: Non-Exempt
Prepared Date: 07-12-17
Approved By: City Engineer
Approved Date: 7-20-17
Salary Level: Grade 13 - \$3,848-\$5,594 monthly

SUMMARY

Assists Engineer in principles, methods, and techniques of engineering technology by performing the following duties.

ESSENTIAL DUTIES AND RESPONSIBILITIES include the following. Other duties may be assigned.

Drafts detailed dimensional drawings such as those needed for legal drawings and descriptions. Assists City Engineer in development of construction plans and specifications for various street, sanitary sewer, municipal water, storm sewer and waste disposal systems using computer aided drafting (CAD) equipment as well as conventional means.

Requires familiarity with recent versions of AutoCad, ArcGIS, and other complex mapping programs, coordinate geometry, conversion of various drawing files, Windows, and various Microsoft Office programs.

Acts as main Geographic Information System (GIS) coordinator for the City. Must compile existing information into formats that can be incorporated into a GIS format that can be used by other departments within the City. Must work with engineering/surveying firms to develop GIS system for the City and work with County GIS coordinator to develop system within 2 mile extraterritorial boundary. Incorporates City utility system into GIS for use by public utilities department.

Is responsible for all mapping for various City departments.

Inspects construction and project sites and confers with Engineer to ensure conformance to design plans and specifications. Communicates with Contractor regarding interpretation of plans, monitors and documents Contractor performance, and prepares construction progress estimates.

Assists City Engineer to ensure that construction, reconstruction and repair of water and wastewater treatment systems meet pollution control requirements and are completed according to standards established by the ND Health Department and City of Devils Lake Engineering Department.

Reviews project specifications and confers with City Engineer concerning engineering studies and reports, plan preparation, preparation of project cost estimates, acceptance of testing, evaluation of field conditions, design changes, and reports. Assists City Engineer in overall project development and management.

Conducts materials testing and analysis. Prepares reports detailing tests conducted and results.

Keeps records necessary for project documentation.

Attends public meetings as necessary and assists the City Engineer in the development of maps, documents and presentations for public information.

Surveys project sites and utilities to obtain adequate survey data for mapping and project development, and analyze topographical details of sites. Occasionally works with local surveyor.

Completes construction staking through completion of the project.

Calculates dimensions, profiles, and quantities of materials such as excavation, embankment, base materials, concrete, asphalt, and all other pertinent construction items.

OTHER DUTIES

This job description is not meant to be all-inclusive or restrictive and other duties may be assigned. It is a description of the job as presently defined, and is subject at any time to revision. This document is intended to describe the general nature and level of work being performed by individuals assigned to this classification. This is not to be construed as an exhaustive list of all responsibility, duties, and skills required. Individuals may be required to perform duties outside of their normal responsibilities, as needed.

SUPERVISORY RESPONSIBILITIES

May directly supervise up to four temporary employees or contract labor in the Engineering Department. Carries out supervisory responsibilities in accordance with the organization's policies and applicable laws. Responsibilities include training employees; planning, assigning, and directing work in the field.

QUALIFICATIONS

To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

EDUCATION and/or EXPERIENCE

Associate's degree (A. A.) or equivalent from two-year college or technical school, preferably graduate of Civil Engineering Technician program; or two years experience in engineering or construction related field and/or training; or equivalent combination of education and experience. Extensive training in CAD is required. Training and experience in surveying, construction inspection and GIS preferred but not required.

LANGUAGE SKILLS

Ability to read, analyze, and interpret common scientific and technical journals, financial reports, and legal documents. Ability to respond to common inquiries or complaints from customers, regulatory agencies, or members of the business community. Ability to write legibly conforming to prescribed style and format. Ability to effectively present information to management and public groups. Ability to

understand and write legal property descriptions. Effective verbal and listening communication skills. A strong grasp in the English language, with ability to speak and understand clearly.

MATHEMATICAL SKILLS

Ability to apply mathematical concepts such as linear dimensions, square footage, square yardage, acres, acre-feet, volumes, decimals, fractions, ppm, mg/l, in both English and metric units. Ability to apply mathematical operations to such tasks as frequency distribution, determination of test reliability and validity, analysis of variance, correlation techniques, and sampling theory. Use triangulation techniques to best interpret survey data and change map projections. Ability to apply engineering mathematical concepts as they relate to the surveying, design and construction of all municipal systems.

REASONING ABILITY

Ability to define problems, collect data, establish facts, and draw valid conclusions. Ability to interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.

CERTIFICATES, LICENSES, REGISTRATIONS

Valid ND drivers license required.

OTHER SKILLS AND ABILITIES

Ability to comprehend and operate basic computer programs, AutoCad Civil 3D, ArcGIS, and Microsoft Office. Ability to operate and understand surveying instruments and testing equipment. Ability to work well with contractors and the general public.

PHYSICAL DEMANDS

The physical 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.

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, or feel objects, tools, or controls; reach with hands and arms; and talk and hear. The employee is occasionally required to stand; walk; sit; climb or balance; and stoop, kneel, crouch, or crawl. The employee must occasionally lift and move up to 50 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee works approximately 75% of the time in inside conditions and 25% of the time in outdoor conditions. The employee occasionally works in outside weather conditions near heavy equipment and is occasionally exposed to wet and/or humid conditions and fumes or airborne particles. The noise level in the work environment is usually moderate.

This position requires individual to occasionally work 40+ hours per week.