



JOB DESCRIPTION

JOB TITLE:	Engineering Technician		
DEPARTMENT:	Engineering	DIVISION:	Engineering
REPORTS TO:	Construction/Infrastructure Manager		
SUPERVISES:	None		
FLSA STATUS:	Non-Exempt	EFFECTIVE DATE:	1/1/2018

POSITION SUMMARY

Under limited direction, this skilled technical position performs intermediate work in field and office engineering, assisting in surveying project sites, performing research, drafting plans, preparing maps, calculating quantities, making algebraic and geometric design computations, operating survey equipment and AutoCAD Civil 3D software, assisting construction staking crews on project sites, inspecting construction projects for compliance with plans and specifications, preparing and maintaining records, files and reports, conducting safety and maintenance inspections of City infrastructure, and related work as required. This position exercises no supervisory responsibilities.

ESSENTIAL FUNCTIONS: *The essential functions of the position include, but are not limited to the following major duties performed. Duties are listed from most to least important.*

- Assists the Senior Engineer in the development and preparation of engineering reports, plans and specifications for a wide variety of utility and transportation infrastructure projects, including sewer and water mains and streets.
- Assists the Senior Engineer with preliminary and design calculations for estimating quantities and designing line, grade and alignment of utility and transportation infrastructure projects.
- Assists in developing, preparing and/or reviewing and updating utility and transportation infrastructure maps, database and comprehensive plans.
- Assists with maintaining and preserving public works records; drafts as-built records of projects; documents changes for the operation and maintenance programs.
- Operates survey equipment including GPS equipment, Total Station equipment, Auto levels, grade rods, etc.; assists construction staking crews and completes as-built surveys using computer aided drafting equipment.
- Drafts and calculates field notes to document material testing and certification, quantities, alignment and grades at locations according to project plans for Federal, Municipal, State Aid and locally funded projects.
- Researches records, maps and other information to obtain typical engineering data such as location of easements, sewer stubs, water mains, hydrants, property special assessments, etc.
- Drafts detailed dimensional drawings such as street, water, sewer, drainage and other utility plans, systems and projects.
- Performs construction inspection to ensure compliance with the plans, specifications and applicable Federal and Municipal State Aid project development requirements.
- Reviews shop drawings and submittals for compliance with project specifications.
- Performs office-related functions including preparing correspondence, maps, presentation materials, brochures, field notes, printing materials, answering phones and responding to inquiries from contractors, developers, property owners, staff and the general public; prepares and maintains records, files and reports as required.

- Draws charts for statistical data representation; draws finished designs from sketches.
- Uses computer assisted drafting (Auto CAD Civil 3D) equipment and software.
- Performs other duties as requested.
- Attendance at off-site courses/trainings/seminars may be required.

MINIMUM REQUIREMENTS: *To perform this position successfully, an individual must be able to perform each essential function satisfactorily. The requirements listed below are representative of the formal education, experience and training required.*

Education and Experience

- Associates/Technical degree in civil engineering, engineering technology, surveying, drafting, construction management, or related field
- Three years experience in the utilization of current AutoCAD Civil 3D software, performing and assisting in surveying, construction management, construction inspection, or related field

Training, Certificates, and Licenses

- MnDOT Certifications (within 12 months of hire)
 - Grading & Base 1&2
 - Bituminous Streets 1&2
 - Concrete Field 1&2
- Valid driver's license

KNOWLEDGE, SKILLS, and ABILITIES

General knowledge of surveying and civil engineering principles, procedures and techniques; general knowledge of engineering maps and records; general knowledge of city, state and federal policies, laws and regulations; ability to interpret operating, maintenance, technical and procedure manuals and engineering plans and specifications; ability to prepare, organize and maintain engineering field and office data, reports and systems; ability to communicate effectively, both orally and in writing; ability to understand and carry out written and oral instructions; skill in operating necessary tools and equipment such as personal computer and word processing, spreadsheet, database, and Civil 3D software and standard drafting tools; ability to establish and maintain effective working relationships with associates, supervisors, other departments, vendors and the general public

PHYSICAL REQUIREMENTS and WORKING CONDITIONS

This work requires the regular exertion of up to 10 pounds of force, frequent exertion of up to 25 pounds of force and occasional exertion of up to 50 pounds of force; work regularly requires walking and using hands to finger, handle or feel, frequently requires standing, speaking or hearing and repetitive motions and occasionally requires sitting, climbing or balancing, stooping, kneeling, crouching or crawling, reaching with hands and arms, pushing or pulling and lifting; work has standard vision requirements; vocal communication is required for expressing or exchanging ideas by means of the spoken word; hearing is required to perceive information at normal spoken word levels; work requires preparing and analyzing written or computer data, visual inspection involving small defects and/or small parts, using of measuring devices, operating machines and observing general surroundings and activities; work frequently requires exposure to outdoor weather conditions; work is generally in a moderately noisy location (e.g. business office, light traffic).

NOTICE

The above statements are intended to describe the general nature and level of work being performed by individuals employed in this job. They are not intended to be an exhaustive list of all duties and qualifications required of personnel in this job. The employer may and reserves the right to change the job description and establish, modify or eliminate job duties and responsibilities and jobs at its discretion with or without notice.