

Job Description

Human Resource Use Only

Position Number:

Step/Grade

Effective Date:10-2021

POSITION IDENTIFICATION

Position Title: Staff Engineer
Department: Department of Public Infrastructure
Status: Full-Time Exempt
Workweek: Monday – Friday, subject to call-in

SUPERVISORY RELATIONSHIPS

Reports to: Engineering Division Manager
Directly Supervises: None

POSITION PURPOSE

The Staff Engineer performs a variety of duties for design, construction, planning, budgeting, and estimating of the Engineering. Does related work for design, construction and maintenance of all City infrastructure including streets, sewers, bridges, harbor, marina, buildings, parks, traffic control devices and street lighting. Responsible for professional work in Civil Engineering requiring knowledge of civil engineering work, surveying, and drafting including computer aided drafting and design (CADD).

The Staff Engineer reports to the Engineering Division Manager and works closely with the Public Infrastructure Committee and the Public Safety Committee.

This is a responsible and visible position, and requires both knowledge of civil engineering and the ability to deal with people of varied backgrounds with great diplomacy.

ESSENTIAL DUTIES

- Designs concrete paving, asphalt paving, sanitary and storm sewers, traffic control systems, steel sheeting projects and other sundry infrastructure related projects
- Plans geometric design of streets for horizontal and vertical curve, sight distance and intersection configuration
- Assists with obtaining utility easements or other easements that are required by various construction projects
- Establishes and calculates grades for streets, curb and gutter, sewers, sidewalks, ponds, infiltration basins, and rain gardens
- Uses the Wisconsin Department of Transportation's Facilities Development Manuals and City's Engineering Design Manual in designing various projects
- Assists with obtaining the required permits from all County, State and Federal agencies
- Assists with coordinating with the utility companies (gas, water, electric, telephone and cable) the location and installation of their facilities in the public right-of-way
- Assists with laying out sanitary sewers to serve newly annexed area

- Prepares cost estimates for contracts and potential projects
- Prepares documents for public meetings for future improvements of streets, sanitary sewers, traffic corridors and special assessments
- Prepares environmental statements for construction projects
- Calculates sewage flows and pipe capacities for new and existing sewer systems
- Designs traffic signal intersections and perform traffic studies, collision diagram and vehicle counts
- Submits sanitary sewer drawings and permits to WDNR for approval
- Reviews on a weekly basis all inspection documentation for accuracy and suitability to task
- Performs advanced drafting of sewer, street, sidewalk, and other construction projects while displaying accuracy and neatness
- Updates original construction plans from field notes, completes as-built drawings
- Attends meetings and continuing education seminars to keep up with the latest techniques and technologies, etc.
- Uses Computer Aided Drafting and Design (CADD) for mapping, drafting plans, maps, and drawings, and other various required projects.
- Uses a personal computer to prepare various documents using Microsoft Word, Excel, and Access programs.
- Assists in the preparation of contract quantities and bid documents for various public works programs.
- Inspects construction of streets (concrete, asphalt, slurry sealing), sanitary sewers, storm sewers, curb and gutter, storm water ponds, bridge repairs and sidewalks for compliance with the plans and specifications.
- Determines if materials and quantities used comply with contract specifications
- Prepares Field Orders, Work Change Directives and Change Orders for approval by their supervisor
- Prepares necessary reports and keeps neat and accurate records relating to the inspection of public works construction projects
- Gives general as well as technical information regarding departmental activities in response to telephone or personal inquiries
- Assists in preparing engineering calculations as directed
- Gather information needed for annual reports
- Performs advanced engineering calculations as directed
- Conducts field investigations and writes necessary reports
- Assists with compliance of the Department of Natural Resources WPDES Stormwater Involvement and participation, illicit discharge detection and elimination, construction site pollutant control, post construction site stormwater management, pollution prevention, storm sewer system map, annual report, and schedule of compliance.
- Assists with applying NR151, NR216, and other applicable rules to all developments
- Assists with enforcement and compliance of the City's Municipal Code for Stormwater issues under Chapters 28, 29, and 30
- Assists with overseeing all facets of the stormwater management budget

- Assists with drafting all documents needed for the stormwater program (letters, notices, press releases, PowerPoint presentations, maintenance plan and agreements, education materials and flyers)
- Assists with the preparation of stormwater grant applications, administering grants, grant reporting, and reimbursement
- Assists with updating the City's Stormwater Management Website
- Assists with mapping and maintaining stormwater management geodatabase using GIS system
- Reviews site plan developments to conform with City policy
- Oversees implementation of stormwater maintenance contracts
- Responds to citizen complaints regarding engineering and stormwater issues
- Issues sidewalk, erosion control and stormwater management permits
- City liaison with DNR and the Army Corps of Engineers

OTHER DUTIES

- Other duties as assigned

MINIMUM POSITION QUALIFICATIONS

Education: Bachelor of Science Degree in Civil Engineering from an accredited university or college is required. Employee must have the ability to become a registered Professional Engineer in the State of Wisconsin.

Experience: The position requires at least 1 year of engineering experience in the field of Civil Engineering or an equivalent combination of experience and training which provides the required knowledge, skills and abilities. The position shall be held by a registered Engineer in Training in the State of Wisconsin.

Certifications/Licenses: Must possess a valid Wisconsin Driver's License
Employee must be a registered Engineer in Training (EIT) in the State of Wisconsin or the ability to become registered as an EIT in Wisconsin within six months of being appointed to this position.

KNOWLEDGE, SKILLS, & ABILITIES

The position requires a knowledge of the modern principles and practices of public works administration; knowledge of the principles and practices of civil engineering as applied to the administration of diversified public works activities; knowledge of the sources of engineering information and ability to apply modern engineering methods; initiative and resourcefulness in handling general engineering problems; thoroughness; must have ability to use a personal computer including proficiency with Microsoft Word, Excel and Access . Ability to read and interpret policy manuals, technical manuals, City Ordinances and State Statutes; the ability to communicate with the general public, local political leaders and State and Federal agency personnel on all related matters; ability to present facts, figures and recommendations effectively in written and oral form; ability to prepare and issue reports for use by staff, boards, committees, local officials and the community; ability to make a detailed presentation to technical personnel and to the public. Knowledge to calculate business methods of percentage, interest, and algebra; ability to compute complex trigonometry problems for surveying; ability to

compute complex engineering flow calculations for pipe and open channel flows; ability to calculate civil engineering standard forces and loads. Ability to apply situational reasoning ability by exercising good judgment, decisiveness and creativity in complex situations when dealing in a potentially unreceptive environment. Ability to coordinate eyes, hands, feet and limbs in performing semi-skilled movement in operation of calculator, telephone, and computer keyboard and utilize a transit instrument, surveying equipment and manual labor.

Ability to read and interpret design manuals, specification manuals, City Ordinances, State Laws, building codes, and any other necessary codes or regulations; ability to read and interpret construction plans and specifications; ability to present facts and recommendations effectively in written and oral form; ability to prepare drawings from field notes.

Must exercise good judgment at all times; must have the ability to maintain a professional attitude during all conversations; must have the ability to discuss and resolve problems in a courteous and professional manner.

BACKGROUND CHECK

Condition of employment

PHYSICAL DEMANDS

The physical demands described herein 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.

- Manual Dexterity:** While performing the duties of this job, the employee is required to sit, stand, walk, climb, stoop, kneel and use both hands, talk and hear.
- Physical Effort:** The employee must regularly lift and/or move up to 25 pounds, frequently lift and/or move up to 50 pounds, occasionally lift and/or move more than 100 pounds.
- Working Conditions:** While performing the duties of this job, the employee is regularly exposed to outside weather conditions; regularly walking over uneven terrain; and uses ladders for access to areas. The noise level in the work environment is usually moderate, occasional exposure to heavy construction equipment, pavers and backhoes are part of inspection operations. The employee has to be aware of safety requirements on and off construction projects.

This position description has been prepared to define the general duties of the position, provide examples of work and to detail the required knowledge, skills and abilities as well as the acceptable experience and training for the position. The description is not intended to limit or modify the right of any supervisor to assign, direct, and control the duties of employees under supervision. The City of Manitowoc retains and reserves any and all rights to change, modify, amend, add to or delete from any portion of this description in its sole judgment.

This job description is not a contract for employment.

The City of Manitowoc is an equal opportunity employer, in compliance with the Americans with Disabilities Act. The City will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.