

CITY OF MARQUETTE
Job Description

POSITION TITLE: Staff Engineer
REPORTS TO: City Engineer
EFFECTIVE DATE: April 1, 2017
JOB CLASS CODE: Non-Exempt/City Hall Bargaining Unit

JOB SUMMARY

This position involves diversified professional engineering work associated with the planning, design, construction, inspection, and maintenance of Public Works, Capital Improvement Projects, activities of the Community Development Department, and other City Departments as required.

The Staff Engineer assists the City Engineer and the Assistant City Engineer with efficiently fulfilling the responsibilities of the Community Development Department. The Staff Engineer reports directly to the City Engineer and has responsibilities that can be broken into two general areas: engineering design and field inspection.

ESSENTIAL DUTIES

To perform this job successfully, an individual must be able to perform the following essential functions satisfactorily:

- Provide engineering support activities to the City Engineer generally within such areas as streets, pathways, traffic, water supply, wastewater systems, and storm sewer systems.
- Observe, inspect and oversee construction projects in order to document conformance with plans and specifications.
- Prepare project specifications, plans and bid documents.
- Plan and design potable water utilities, sanitary sewer utilities, storm sewer utilities, streets, sidewalks, pathways, parking lots, and other capital improvement projects under the direct supervision of the City Engineer.
- Aid in the preparation of preliminary design, and construction surveys to assure project control. May serve on construction surveys when requested.
- Read, understand and analyze survey reports, traffic studies, maps, drawings, blueprints, aerial photography, and other topographical or geologic data to plan projects, and develop schematic drawings, diagrams and instruction manuals.

- Conduct studies of traffic patterns, environmental conditions, or of the municipal utilities to identify engineering problems and assess the potential impact of projects.
- Serve as a design assistant to the City Engineer in developing street and utility plans and specifications utilizing the latest CADD (computer-aided design and drafting) software.
- Provide instruction to Engineering Aides or temporary employees on such activities as preparation of plans, layouts, surveying, testing, inventories and miscellaneous engineering functions as assigned.
- Authorize deviations from project plans when budget implications are minimal.
- Contact affected citizens on capital improvement or municipal projects as needed. Investigate complaints and recommend remedial action.
- Conduct surveys i.e. topographic, land, design, traffic, and soil condition.
- Conduct tests using a variety of engineering test equipment.
- Maintain related municipal or capital improvement infrastructure records.
- Post field changes reflecting maintenance and construction activities.
- Prepare related reports and permits for State and Federal agencies.
- Provide a range of engineering technical advice related to Public Works or other Department activities.
- Assure conformance to standard safety requirements.
- Prepare and interpret legal descriptions of property.
- Locate street rights-of-ways.

NON-ESSENTIAL DUTIES

Performs engineering and other related functions as assigned.

MATERIALS AND EQUIPMENT USED

- Standard computer software including word processing, data base, civil engineering design, hydrology design, spread sheets, project management, and presentation.
- Telephone, standard duplicating equipment.
- Standard drafting, CADD, Civil 3D and GIS Equipment.
- All related equipment to perform required testing, measuring, and calculating. e.g. auto and/or laser level, dumpy level, total station, roll-a-meter, pres-ur-meter, slump cone,

centrifugal extractor, digital and electronic scales, triple beam scale, well sampling equipment, chlorine tester, etc.

MINIMUM QUALIFICATIONS REQUIRED

Knowledge:

- Knowledge of civil engineering procedures and practices to assure safe and cost-effective technical guidance.
- Knowledge of common civil engineering standards particularly in the areas of street, water distribution, wastewater distribution, and storm sewer distribution systems to assure quality of maintenance and construction.
- Knowledge and skill in engineering layout and drafting (including computer aided drafting) to prepare accurate designs.
- Knowledge and skill in using various computer software programs relating to Civil and Hydrological Design.
- Skill in conducting engineering surveys to provide accurate technical information.
- Knowledge of contractor operations and procedures.

Education and/or Experience:

- B.S. degree in Civil Engineering from an accredited four-year college or university.
- Possess an Engineer-in-Training Certificate.
- Possess, or be able to obtain, State Certifications for various engineering and construction inspections.
- Possess, or be able to obtain, State Certifications for various material testing procedures.
- A minimum of three years' experience in the planning, designing, CADD drafting, construction, inspection, and maintenance of municipal projects and activities or a combination of experience and training which provides the required knowledge, skills, and abilities is desirable.
- Actively pursuing a State of Michigan Professional Engineer's License.
- Possess demonstrated ability to design and draft street and utility plans proficiently using the latest computer programs and equipment available to the City Engineering Department.
- A valid Michigan Driver's License is required, or the ability to possess a valid Michigan Driver's License within 30 days of hire.

Language Skills:

- Ability to read, analyze and interpret general business periodicals, professional journals, technical procedures or governmental regulations.
- Ability to write reports, business correspondence and procedure manuals.
- Ability to effectively present information and respond to questions from groups and the public.

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.

Other Skills and Abilities:

- Leadership and management skills.
- Ability to establish and maintain positive working relationships with supervisors, co-workers, contractors and the general public.
- Excellent written and verbal communication skills.
- Ability to identify and implement technology that increases productivity and efficiency.
- Ability to work overtime (nights and weekends), as directed by the City Engineer.

PHYSICAL DEMANDS

- Lifting of 75 lbs. maximum and frequent lifting and/or carrying of objects weighing up to 40 lbs. May be required to lift up to 150 lbs. with the assistance of another person.
- Frequent standing, walking and sitting.
- Occasional driving.
- Must be capable of using hand(s)/feet for repetitive fine manipulation, single grasping, pushing, pulling and operating controls.
- Frequent bending, twisting, squatting and reaching.
- Occasional climbing and grappling.
- Ability to communicate orally in a clear manner.
- Ability to distinguish sounds at various frequencies and volumes.
- Ability to distinguish people or objects at varied distances and under a variety of light conditions.
- Ability to work in a variety of weather conditions, traffic hazards, around hazardous materials, varying noise levels and confined spaces.

This job description should not be interpreted as all inclusive. It is intended to identify the major responsibilities and requirements of the job. The incumbents may be requested to perform job-related responsibilities and tasks other than those stated on this job description.

Approved by:

Department Head

Director of Administrative Services