

<b>ENGINEERING TECHNICIAN II</b>  <b>ENGINEERING DEPARTMENT</b> <b>CITY OF WINONA, MINNESOTA</b>	<b>JOB DESCRIPTION</b>	
	<b>REPORTS TO: CITY ENGINEER</b>	
	<b>DIRECTLY SUPERVISES: None</b>	
	<b>9/16/99</b>	<b>APPROVED:</b>

**SUMMARY:**

The primary objectives of this job are inspection of workmanship, techniques, and materials in public works construction projects. Represents City Engineer in daily on-site decisions and communications with contractors, private utilities, and general public. Enforce compliance of City codes, State specifications, and contract documents. Develop and draft construction plans for public works projects. Operate instruments on survey crew. Document, draft and file permanent project records and documents. Instructions are received from the City Engineer and work is performed with little review and supervision.

**ESSENTIAL FUNCTIONS OF THE JOB:**

- Verify, measure and document contract items that are installed
- Test materials
- Make pay estimates
- Check construction operations for compliance with codes and specifications
- Report progress and quality of work being performed
- Make construction diaries and fill out State and Federal forms
- Serve as plant inspector at both concrete and bituminous batch plants
- Liaison between City Engineer, private utilities and general public
- Collect, organize and document information for the drafting of construction plans
- Draft construction plans
- Determine, calculate and document quantities of bid items
- Redraw and file as built
- Update maps
- Work on survey crew as instrument person
- Assist general public on telephone and in office with questions and issuance of permits
- Performs related work as required

**QUALIFICATION REQUIREMENTS:**

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.

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#### ***EDUCATION AND EXPERIENCE:***

- High School Graduate or hold GED Certificate
- Vocational or Junior College Degree in Civil Engineering
- Minnesota Department of Transportation (MNDOT) Certification in: Grading & Base, Bituminous and Concrete
- Experience with soils, concrete, bituminous, plumbing, electrical, construction equipment and techniques, survey equipment, and construction staking techniques

#### ***LANGUAGE SKILLS:***

- Ability to verbally communicate
- Ability to interpret construction plans, specifications, contract documents, procedural and technical manuals
- Ability to prepare construction diaries, State and Federal forms, correspondence to general public and contractors

#### ***MATHEMATICAL SKILLS:***

- Ability to make arithmetic computations using whole numbers, fractions and decimals
- Ability to compute rates, ratios and percentages
- Ability to use geometry and trigonometry in surveying

#### ***OTHER SKILLS AND ABILITIES:***

- General knowledge of computer operations
- Ability to incorporate a wealth of technical data into plans neatly
- Ability to organize information
- Ability to compute quantities from a plan accurately
- Considerable knowledge of materials, methods, techniques, tools and equipment used in utility and highway construction
- Ability to foresee problems and take proper action to avoid them
- Evasive and defensive driving skills (Valid Drivers License)

#### ***CERTIFICATES, LICENSES, REGISTRATIONS:***

- Valid Driver's License
- Valid Commercial Driver's License desired

### **MINIMUM QUALIFICATIONS:**

- High School Graduate or hold GED Certificate
- Vocational or Junior College Degree in Civil Engineering
- Valid Driver's License
- Experience with soils, concrete, bituminous, plumbing, electrical, construction equipment and techniques, survey equipment, and construction staking techniques

### **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 of this job which include, but are not limited to; measure distances with tape at ground level; dig with shovel; communicate in person and on telephone; operate computer and climb steep grades and rough ground during surveying.

While performing the duties of this job, the employee regularly stands, walks, talks or hears, climbs or balances and reaches with hands and arm; frequently sits and uses hands to finger, handle or feel and occasionally stoops, kneels, crouches or crawls.

While performing the duties of this job, the employee frequently lifts up to 10 pounds and occasionally lifts up to 100 pounds. Specific vision abilities required to perform this job are close vision, distance vision, color vision, peripheral vision, depth perception, and 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 may regularly be required to work near moving mechanical parts, be exposed to fumes or airborne particles and work in outdoor weather conditions; frequently works near vibration; occasionally be required to work in wet, humid conditions, high, precarious places, be exposed to toxic or caustic chemicals and the risk of electrical shock.

The noise level in the work environment is loud.