



# Engineering Technician II

<b>Department</b>	Highway	<b>Classification</b>	Grade 13
<b>Reports to</b>	Highway Engineer	<b>Unit</b>	Local 49 Maintenance, Engineering, and Land Surveying
<b>Supervises</b>	Assistant Highway Engineer Highway Engineer	<b>FLSA Status</b>	Non-exempt

## **POSITION DESCRIPTION**

Perform engineering work, from direction and oversight of assigned staff, by applying civil engineering skills to engineering/surveying activities, including development of preliminary and final design construction plans, on-site construction inspections for moderate to major scale projects, or other specialty engineering activities such as materials testing, staking, mapping, etc. Ensure proper program execution and compliance with Department, State, and Federal procedures, practices, regulations and standards.

**ESSENTIAL DUTIES OF THE POSITION:** (These duties are a representative sample; position assignments may vary.)

### **Road/Bridge Design**

- Develop preliminary and/or final highway or bridge construction plans for simple to moderate projects involving right-of-way acquisition, environmental issues and community involvement to meet department, state, and federal laws, standards, and objectives.
- Identify project alternatives utilizing current best practices along with research of prior roadway construction activities.
- Assist with research and selection of appropriate design and industry standards.
- Provide contractors with necessary specifications by completing or directing the drafting and detailing of the design features.
- Estimation and calculation of accurate project quantities for bidding estimates and budgeting purposes.

### **Road/Bridge Construction Inspection**

- Assist with the inspection of highway and bridge construction projects to insure compliance with project plans, special provisions, standard specifications, and specified time tables by conducting daily site inspections and testing, interpreting plans and specifications.
- Assist with documentation of all quantities for work certified and enter into contract administration software for the preparation of pay estimates.
- Complete daily diaries documenting work conducted, contractors onsite, weather conditions, and working day charges.

- Daily communication with engineers, contractors, co-workers, and the public regarding project activities and concerns.

### **Bridge Safety Inspection**

- Assist Bridge Inspection Lead Worker with annual bridge safety inspections.

### **Surveying**

- Assist with the collection of accurate and reliable land survey data to determine the horizontal and vertical position of points used in engineering projects using a variety of survey instruments, such as GPS, Total Stations, Levels, Drones, etc.
- Utilize survey information for the preliminary and final design of construction plans, construction staking, and property boundary determinations.
- Survey completed road and bridge construction projects to insure accuracy with the construction plans and for proper quantity documentation.
- Regular attendance on the job.
- Perform other duties as assigned.

### **Qualifications:**

- High school graduate or equivalent
- 2 year post-secondary degree in Civil Engineering Technology or related field or 4 years of direct applicable experience
- Valid driver's license and reliable means of transportation
- Successfully pass a pre-placement screen, contingent upon a job offer
- Minnesota Department of Transportation Technical Certifications in Aggregate Production, Grading and Base Level 1, Bituminous Street Level 1, Bituminous Plant Level 1, and Concrete Field Level 1 or obtain within 1 year of hire
- Certification in Construction Site Management from the University of Minnesota or obtain within 1 year of hire

### **KNOWLEDGE, SKILLS, AND ABILITIES**

#### **Knowledge:**

- Microsoft Word and Excel. Policies, procedures, rules, regulations, and operating practices applied in project management. Computer operations, office and bookkeeping functions. Road/Bridge design specifications. Material testing procedures

#### **Skills:**

- Computer functionality in Windows, word processing, spreadsheets, database, internet, email, CADD, contract administration software, and office equipment. Customer service. Mathematical computations. Detailed record keeping for project quantities and required inspection documentation. Effectively communicate, both orally and written.

#### **Abilities:**

- Work a flexible schedule. Organize and prioritize work in a timely manner with attention to detail. Work safely in heavy traffic areas. Work independently. Complete job tasks in a timely

manner with frequent interruptions. Multi-task; detail oriented. Keep work areas clean and organized to provide an environment conducive to safety. Establish and maintain effective working relationships. Follow state and federal guidelines for the completion of projects.

**PREFERRED QUALIFICATIONS**

- 2 year post-secondary degree in Civil Engineering Technology or related field
- Work experience providing construction inspection, including bridges, grading, paving, and maintenance projects
- Possess current Minnesota Department of Transportation Technical Certifications
- Possess current Certification in Construction Site Management from the University of Minnesota
- Work experience using Computer-aided Design and Drafting (CADD)
- Work experience with surveying and associated equipment (GPS, Total Stations, Levels, etc.)

**PHYSICAL REQUIREMENTS (SCREENED)**

To view the Functional Job Analysis for this job [click here](#).

**NOTE (MANAGEMENT RIGHT)**

The above position description is intended to represent only the key areas of responsibilities; specific position assignments will vary depending on the business needs of the department. The County retains the discretion to add or change the contents of this position description at any time.

**Revision date:** 10/2024