



**POSITION DESCRIPTION
KOOCHICHING COUNTY**

SECTION I: GENERAL INFORMATION

Position Title: Engineering Technician	Department: Highway Department	FLSA Status: Non-Exempt
Date: 10/2010	Job Evaluation Assignment B23	Immediate Supervisor's Position Title: Assistant County Engineer
<p>Job Summary:</p> <p>Under the direction of the Assistant County Engineer, the Engineering Technician is responsible for performing technical civil engineering operations and functions involved in the design of highways projects by the County Engineer. Duties include collecting preliminary survey work; operating CAAD software used in design, performing construction & inspection staking and directing survey field crews; inspecting work, materials and monitoring compliance with project specifications; documenting all field progress and verifying acceptance of project change orders.</p> <p>Positions assigned to this classification perform similar duties and functions and tasks as the Engineering Technician, Sr. but employees generally are less experienced and require less experience than that of the Engineering Technician, Sr.</p>		

SECTION II: ESSENTIAL DUTIES AND RESPONSIBILITIES

1. Plans and prepares federal, state, and county projects to include such tasks as: conducts pre-design inspections and surveys; drafting plans and specifications for highway construction and maintenance performed by contractors and county forces; produces storm water pollution prevention plans; conducts field work and compiles data to determine quantities required for project completion; monitors activity of contractors to ensure compliance with mandated specifications. 50%
2. Participates and performs survey and inspection work involved on federal-aid, state-aid, and county projects. 20%
3. Stakes project sites to design specifications for contracted and county construction crews to assure compliance with project specifications, material requirements, and inspects contracted work. 15%
4. Compiles and documents data collected, and information required for state and federally funded projects to ensure that the county receives the correct funding for payments that must be made to contractors. 5%
5. Learns and applies CAAD skills and design software to standardize project computer data. 5%
6. Logs hours on specified roads. 5%
7. Performs other duties of a comparable level/type, as required.

SECTION III: WORK REQUIREMENTS AND CHARACTERISTICS

EDUCATION/KNOWLEDGE REQUIREMENT: Minimum education required to perform adequately in position could reasonably be attained only by completing the following:			
REQUIRED EDUCATION/TRAINING (choose one)		DEGREE INFORMATION: Type of degree: (B.S., M.A., etc.)	
less than high school diploma		Technical certificate from an accredited 2 year program.	
High school diploma or GED.		Major field of study or degree emphasis:	
1 yr post secondary	x	2 yrs post secondary	Civil Engineering Technician
3 yrs college		4 yrs college	
1st year graduate level		Essential knowledge and specialized subject knowledge required to perform the essential functions of the job: <ul style="list-style-type: none"> ▪ Fundamental principles and concepts of civil engineering and surveying. ▪ Knowledge of mathematics (e.g. algebra, trigonometry, and geometry) used in civil engineering. ▪ Fundamental understanding of computer operations, engineering design software (e.g. CAAD) used in engineering design, drafting and documentation. ▪ Knowledge of construction material testing and analysis procedures for aggregate, concrete and bituminous materials. ▪ Fundamentals of accepted state and state-aid standards, rules and criteria. • Knowledge of department operating procedures and processes impacting the performance of job assignments 	
2nd year graduate level			
Required Work Experience in Addition to Formal Education/Training: Minimum of 1 year previous directly related civil engineering experience in surveying, inspection and drafting of plans for highway projects.			
LICENSE/ CERTIFICATION		Identify licenses/certification required: A Valid D Minnesota Driver's License. Required to have or obtain MN/DOT Certification within period of time as determined by the department: Bituminous Street (I & II), Aggregate Production Plant I; Bridge (I), Grade & Base (I & II)	

RESPONSIBILITY FOR DIRECT SUPERVISION OF THE FOLLOWING POSITIONS		
	Titles of Positions Directly Supervised	# of Employees
	TOTAL	

INDIRECT SUPERVISION:	
Number of employees indirectly supervised:	Total:

ESSENTIAL SKILLS REQUIRED TO PERFORM THE WORK	<p>Skilled in:</p> <ul style="list-style-type: none"> • Oral and written communications. • Establishing and maintaining effective working relationships with contractors and the public over projects concerns, questions, enforcement of plan/project specifications; and the exchange of information. • Proficient in survey and inspection responsibilities and duties. • Project management, organizational and judgment in dealing with contractors. • Operating survey equipment and using and applying computer aided design programs/applications, business productivity software (e.g. word processing, spreadsheet, presentation programs, etc.). • Proficient in drafting preliminary design plans and documentation of survey information and data used in plan design, analysis and project specifications. Interpreting detailed drawings and specifications and applying information to project designs. • Monitoring and observing project activities supplemental agreements and revisions that may impact progress or on-site circumstances that require the attention of County Engineer or Assistant Engineer. • Operating and applying materials testing equipment. • Preparing and presenting technical, engineering and narrative reports, construction diaries/logs.
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HAZARDOUS WORKING CONDITIONS: <i>The essential duties of the work are performed under various physical hazards or environmental conditions noted.</i>	<p>Unusual or hazardous working conditions related to performance of duties:</p> <p>The essential duties of the job involve exposure to disagreeable outside weather and related conditions (e.g. cold, heat, dust, fumes, wet, steep terrain, woods, insects, etc.), performing duties in and around traffic, at heights, or moving construction equipment, proximity to pile driving operations, construction sites, woods and wetlands.</p>
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SECTION III: WORK REQUIREMENTS AND CHARACTERISTICS

PHYSICAL JOB REQUIREMENTS: Indicate according to essential duties/responsibilities				
Employee is required to:	Never	1-33% Occasionally	34-66% Frequently	66-100% Continuously
Stand			x	
Walk			x	
Sit			x	
Use hands dexterously (use fingers to handle,				x

feel)				
Reach with hands and arms				X
Climb or balance		X		
Stoop/kneel/crouch or crawl		X		
Talk or hear				X
Taste or smell	X			
Physical (Lift & carry):				X
up to 10 pounds				
up to 25 pounds			X	
up to 50 pounds		X		
up to 100 pounds		X		

PHYSICAL JOB REQUIREMENTS: Indicate according to essential duties/responsibilities

Physical requirements associated with the position can be best summarized as follows:

Medium Heavy Work:

Exerting up to 100 pounds of force occasionally, and/or up to 25 pounds of force frequently, and/or up to 10 pounds of force constantly to lift, carry, push, pull or otherwise move objects in the performance of the job .

SECTION IV: CLASSIFICATION HISTORY AND APPROVAL

This Position Description reflects an accurate and complete description of the duties and responsibilities assigned to the position.

Classification History: B23

Date Board Adopted: October 26, 2010 2010/10-33 Job Study