

<b>CITY OF CEDAR RAPIDS POSITION PROFILE</b>	<b>JOB CODE #/TITLE:</b> NB069 Engineering Designer
<b>POSITION #/TITLE:</b> 2070 Engineering Designer	<b>Adopted:</b> 06-10
	<b>Revised:</b>

<b>POSITION DESCRIPTION</b>
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<b>Dept:</b> Public Works	<b>Manager Level:</b> Non-Manager
<b>Salary Plan/Description:</b> NBU/Non-Bargaining Unit	<b>Salary Grade:</b> 10
<b>Reports To Position #/Job Code #/JC Title:</b> 0028/NB267/Sewer Utility Engineering Manager	<b>Dotted-line Reports To Position #/Job Code #/JC Title:</b>
<b>FLSA Status:</b> Non-Exempt	<b>City Overtime Status (Employee Type):</b> Non-Exempt (Exception Hourly)
<b>Physical Demand Rating:</b> Sedentary	<b>Work Environment:</b> Controlled
<b>Pre-employment Testing:</b> Drug and health screening after contingent offer.	<b>Position Testing:</b> Job fit assessment
<b>Personal Protective Equipment:</b> None	

<b>General Statement of Duties</b>
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Designs public improvement projects for the City's Public Works Department; performs related work as required.

<b>Distinguishing Features of the Class</b>
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Considerable leeway is granted for the exercise of independent judgment and initiative.

<b>Examples of Essential Work (Illustrative Only)</b>
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Designs and performs CADD work to develop basic map plans, specifications and features for public improvement projects such as storm sewer systems, sanitary sewer systems, park trails and pedestrian bridges, and drainage and flood control systems;  
 Recommends project improvement detail to engineers and contractors to increase constructability effectiveness;  
 Develops drainage calculations based on storm frequency, topography, hydraulic and engineering calculations;  
 Develops construction specifications, materials selections, proposed construction methodology and project cost estimates;  
 Conducts feasibility studies and researches, analyzes projects budgetary costs of proposed capital improvement projects;  
 Conducts field and site reviews of proposed engineering and construction projects to develop project concepts and identify problems;  
 Responds to inquiries and attends conferences concerning project concepts and design;  
 Develops presentation materials, both technical and visual, charts, diagrams and computer presentations supporting projects;  
 Monitors survey and drafting reports, parameters and data;  
 Performs all work duties and activities in accordance with City policies, procedures and safety practices;  
 Attends work regularly at the designated place and time;  
 Supports continuous process improvement initiatives;  
 Performs related work as required.

### **Required Knowledge and Abilities**

Good knowledge of the design of civil engineering and construction projects;  
Good knowledge of construction materials and specifications;  
Good knowledge of construction principles and practices;  
Good knowledge of CADD programs, primarily Auto CADD and related software for engineering, designing and mapping;  
Thorough knowledge of equipment: printers, plotter etc.;  
Thorough knowledge of mathematical calculations used in engineering design and construction project design and cost estimations;  
Thorough knowledge of surveying principles and practices;  
Thorough knowledge of utility location, easement and construction practices;  
Ability to prepare accurate and reliable reports containing engineering and construction designs, cost estimates findings, conclusions and recommendations;  
Ability to operate a personal computer using program applications appropriate to assigned duties and responsibilities;  
Ability to work cooperatively and to maintain effective working relationships to accomplish job responsibilities;  
Ability to quickly learn and put to use new skills and knowledge brought about by rapidly changing information and/or technology;  
Ingenuity and inventiveness in the performance of assigned tasks.

### **Acceptable Experience and Training**

Graduation from an accredited college or university with an Associate's Degree in engineering technology or drafting; and  
Considerable experience designing engineering and construction projects; or  
Any equivalent combination of experience and training which provides the knowledge and abilities necessary to perform the work.

### **Required Special Qualifications**

None

### **Essential Physical Abilities**

Requires the following, with or without reasonable accommodation:  
Sufficient clarity of speech and hearing, which permits the employee to communicate effectively;  
Sufficient vision, which permits the employee to perform manual and computerized drafting and inspect blueprints and construction specifications;  
Sufficient manual dexterity, which permits the employee to utilize automated drafting and mapping software and develop construction designs and specifications;  
Sufficient personal mobility, which permits the employee to inspect construction projects.