



## City of Kansas City, Missouri Job Class Specification

<b>Job Title:</b>	PRINCIPAL ENGINEERING TECHNICIAN	<b>Department:</b>	MULTI
<b>Job Code:</b>	2014	<b>Status:</b>	EXEMPT
		<b>Grade:</b>	EX-3

### Summary

This is highly responsible technical and/or supervisory work directing all operational activities of a moderately sized computer aided drafting and design (CADD) or geographical information system (GIS) network and/or the management and design of civil engineering projects. Work involves responsibility for scheduling, planning, coordinating, and providing general supervision of a CADD or GIS network or civil engineering project. Work responsibilities include creating and updating of drawing standard, preparing budgetary needs and similar activities. An employee of this class is expected to carry all assignments through to completion without technical supervision, subject only to the limitations imposed by applicable laws, capabilities of equipment, assigned personnel, and administrative policies.

Or

This is specialized technical engineering and/or supervisory field and administrative work of the most advanced and technical dimensions consisting of a wide range and variety of public works programs and projects. Work involves the planning, design, implementation and completion of major assignments or the performance as chief of surveys for the department. Work may also require extensive liaison and coordinating activities with other governmental agencies, city departments and staffs. Assignments are received in both oral and written form and may involve several projects simultaneously. Extensive discretion and judgment are expected to be exercised by employees of this class in the planning and scheduling of work and personnel, along with the acquisition and distribution of materials and equipment. Work is performed under the supervision of a technical superior and is inspected while in process and upon completion by conferences and submitted reports, to ensure adherence to departmental standards.

### Duties and Responsibilities

- Directs activities and operations of assigned employees, production control and computer networks of the section. Supervised the scheduling of projects; determining priority for each project and prepares and assigns work activities. Makes technical and administrative decisions related to system procedural and operational improvements, changes and modifications; reviews and studies finished reports to assure accuracy, proper composition and technical correctness. Interviews prospective personnel; supervises and participates in the conduct of in-service training programs for the assigned personnel.
- Meets with the public to resolve customer complaints and provides technical advice to same.
- Understand the basic operation of other software packages and is capable of coordinating all data between different sections or departments.
- Supervises the preparation of or personally prepares plans, specifications, and estimates for moderately difficult bridges, structures, streets, interchanges, and traffic operations and performs all required computations.
- Reviews and modifies plans and specifications for private contract work; prepares notices to contractors, proposals, contract papers, and related materials; calculates costs and total project bid costs.
- Reviews developer plans and drawings for utility facilities, traffic control, and other code requirements.

**Duties and Responsibilities  
(continued)**

- Supervises employees engaged in maintaining plans, maps, and engineering records of the city.
- Plans and supervises all operations of the department's survey section, including land survey and staking programs.
- Prepares specifications for materials and products; does research work necessary toward finding satisfactory substitutes or alternates and investigates material failures.
- Consults with senior staff, consultants and contractors before, during and following project completion; prepares project inspection reports, maintains diaries, certifies material quantities for payment.
- Performs liaison duties with federal, state and other governmental agencies as required.
- Performs related duties as required.

**Technical Skills**

Considerable knowledge of:

The operation, use and service requirements of a CADD or GIS network.

Methods, principals, and practices of civil design projects or automated mapping.

The principles and methods used in obtaining maximum utilization of equipment and efficient use of personnel.

Complex computer operating systems.

The principles, techniques, practices and equipment of engineering design and drawings, or surface and subsurface surveying.

Mathematics such as algebra, geometry, trigonometry and associated formulas, charts, tables and graphs.

The City's Governing administrative codes and regulations.

Current practices, methods, techniques, materials and materials testing used in engineering and construction projects.

Modern methods and techniques as applied to the design, construction, and maintenance of public projects.

Current developments and literature in the field of engineering or CADD.

Methods, principles and practices of employee supervision leadership and team management.

Ability to:

Plan, organize, supervise and train subordinate employees in the production of project.

Establish and maintain effective working relationships with subordinates, associates, municipal officials and the general public.

Apply appropriate management, supervisory and leadership techniques, motivate employees and assess technical and leadership qualities.

Perform technical research work and to give reliable advice on difficult engineering problems.

Skill in:

Use of highly complex CADD, GIS, engineering, survey, and testing instruments and equipment.

**Education and Experience**

High school graduation and nine (9) years of experience in engineering drawing, mapping, automated mapping, geographical information systems (GIS) and equipment or computer aided drafting and design (CADD), engineering, land survey, or construction inspection or an acceptable combination of education and experience.

OR

High school graduation and seven (7) years of experience in engineering drawing, mapping, automated mapping, geographical information systems (GIS) and equipment or computer aided drafting and design (CADD), engineering, land survey, construction inspection and possession of a Level II Engineering Technology Certification in any Civil, Electrical or Mechanical discipline as issued by the National Institute for Certification in Engineering Technologies (NICET) or "Land Surveyor in Training" as issued by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects.

OR

High school graduation and possession of the Level IV Certification as “Engineering Technician (ET)” as issued by the National Institute for Certification in Engineering Technologies (NICET) or a Registered Land Surveyor’s License as issued by the Missouri Board for Architects, Professional Engineers, Professional Land Surveyors, and Professional Landscape Architects;

**Certificates/  
Licenses/Special  
Requirements**

- Will be required to pass a preemployment drug screen.
- Must pass a background check as prescribed by the City.
- Must possess a valid State –issued driver’s license in accordance with the City of KCMO policies.
- Must possess Missouri Registered Land Surveyors License for appointment Chief Surveyor.

**Supervisory  
Responsibility**

Supervision may be exercised over subordinate technical and other assigned personnel.

**Supervision  
Received**

Work is performed under general supervision.

Note: This job description should not be construed to imply that these requirements are the exclusive standards of the position. Incumbents will follow any other instructions, and perform any other related duties, as may be required. Reasonable accommodation will be provided to qualified individuals with disabilities. The City of Kansas City has the right to revise this job description at any time. The job description is not to be construed as a contract for employment.

**Created**

4/73

**Revised**

12/77, 6/99, 9/99, 9/06, 11/18, 8/22, 07/23