

**JOB DESCRIPTION
CITY OF SPRINGFIELD**

**HUMAN RESOURCES DEPARTMENT
EMPLOYMENT AND
COMPENSATION DIVISION**

Job Title	<u>Senior Engineering Technician</u>
Sch & Grade	<u>PAT-7</u>
Class Code	<u>CD05</u>
FLSA Status	<u>Non-Exempt</u>
Bargain Unit Elig.	<u>AFSCME</u>
Occupational Group	<u>Engineering support</u>

PRIMARY PURPOSE:

Performs engineering technician work in an assigned divisional area within Public Works. Work assignments include preparation and review of engineering studies, data collection, plan review, determining parcel ownerships and preparing legal descriptions, complex drafting for design projects limited in size and scope, and inspection work. Utilizes Geographic Information System (GIS), Computer Aided Design & Drafting systems, and other computer systems as assigned.

SUPERVISION:

Under general supervision of an Associate and/or Professional Engineer; may supervise and/or direct temporary employees and/or interns.

DESCRIPTION OF WORK:

ESSENTIAL FUNCTIONS:

1. Performs computational and complex drafting, which involves creating plans from origination to completion and often involves dealing with only fragmented information, to prepare plans and specifications for the design of engineering projects limited in size and scope.
2. Utilizes appropriate equipment and computer applications such as computer aided design and drafting (CADD), spreadsheet, word processing, database, internet programs, and other customized software to carry out assigned work.
3. Performs inspection responsibilities of contractor work for an assigned area such as the construction of sidewalks, detention basins, or other public improvement.
4. Utilizes the GIS Computer System as assigned to provide analysis of spatial and relational databases in a thematic mapping environment and produces tabular and cartographic reports illustrating the results of the analyses to facilitate the decision-making process concerning placement and repair of infrastructure, determining ownerships, operation of the traffic control systems, etc.
5. Investigates maps, deed records and abstract books to determine ownership of properties and when necessary assists in compiling records and data for condemnation proceedings.
6. Prepares easement and dedication deeds for individual parcels of property.
7. Reads and analyzes survey or traffic data, construction plans/drawings, legal descriptions, etc. to produce plans specifications, and cost estimates.
8. Determines the probable construction cost for various projects.
9. Responds to phone and in-person informational requests from contractors and the general public regarding sanitary sewer, street, floodplain, etc. locations and other information.
10. Reviews plans and plats and ensures they conform and/or are compliant with subdivision and zoning regulations, Public Works standards, and City codes and ordinances.
11. Drives to various construction locations and /or work sites to conduct surveys, gather on-site information, and performs inspections of city and private construction as required; may travel to other vendor locations to locate necessary supplies, materials, etc., as assigned.
12. Assists higher level drafting and design employees with the design of major engineering projects as required.
13. Reads and interprets United States Geographical Surveys (USGS), topographic maps, aerial photos, floodplain maps, plats and other maps as assigned.
14. May act as survey chief to develop plan and/or supervise survey work or assist in the day-to-day monitoring of the traffic control system as assigned.

IMPORTANT FUNCTIONS:

1. Assists lower level technicians in the performance of their work and provides direction as necessary.
2. Attends conferences, workshops, seminars, and other training for professional development purposes.
3. Performs minor office administration tasks such as copying, faxing, operating the blueprint machine, etc.

Performs related work as required

QUALIFICATIONS REQUIRED:

Any combination of education, training, and experience providing the following knowledge, skills, and abilities:

Knowledge

Knowledge of: Principles, procedures, equipment and applicable math equations involved in complex drafting, plan review and/or inspection work in one or more of the following areas including storm water, streets, sidewalks, traffic systems management and operation, sanitary sewers and/or erosion control; computer aided design (CAD) and drafting systems; math calculations relating to design work; applicable laws and regulations as they relate to assigned discipline such as the American's with Disabilities Act (ADA) or Manual on Uniform Traffic Control Devices.

Abilities

Perform complex drafting and computational duties to assist in the design of plans and specifications for construction or system operation; utilize necessary computer systems such as computer aided design systems (CAD), GIS, and specialized system software.; produce engineering drawings or graphical illustration of data/records; read, understand, and interpret plans and specifications; interpret and explain code regulations to architects, engineers, contractors, tradesmen and/or respond to requests of the general public; make inspections of assigned projects or monitor/evaluate system operation; effectively plan and coordinate the work of temporary employees and/or interns; follow oral and written instructions; communicate effectively both verbally and in writing; effectively welcome and embrace differences among employees and citizens; perform effectively as a member of a team in carrying out the City's stated mission and philosophy; deal effectively and courteously with associates, development community and the general public; perform the essential functions of the job without posing a direct threat to the health and safety of others.

Experience, Education, and Training

Two years of college or vocational/technical training in drafting, engineering or industrial technology with an emphasis in construction or a related field plus three years of appropriate experience in drafting, engineering technology, construction inspection or a related area of which at least one year has been direct experience in dealing with street, sidewalk, storm sewer, or sanitary sewer projects. Directly related work experience may be substituted for the education requirement on a year-for-year basis. Preference may be given to experience commensurate with engineering specialty required for current vacancy.

Physical Requirements

Performs bending and reaching to both ground level and overhead; lifts, carries, pushes and pulls up to 50 pounds; ability to operate a computer keyboard and mouse; distinguishes primary colors when utilizing required CAD applications; views construction sites for inspection purposes.

Working Environment

Both indoor (general office) and outdoor working environment; may be exposed to extreme weather conditions, dust, pollen, constant and extreme noise due to general inspection of assigned construction sites; subject to safety hazards associated with working around construction work.

Licensing/Certification

Must possess a valid Missouri Motor Vehicle Operator's License.

Miscellaneous Requirements

May be required to work some extended hours during evenings and weekends due to contractor schedules.

Last Revision:	February 16, 2012	GENERAL ORDINANCE NO. 2282
Comments:	Updated Abilities	Date: May, 1974

I have read the foregoing job description in its entirety and understand its contents. I can perform the essential functions outlined with or without reasonable accommodation under the Americans with Disabilities Act.

Signed: _____ **Date:** _____