



**City of Klamath Falls**

**Position Description**

Position: Senior Engineering Technician–Design/GIS	Group: AFSCME
Department: Development Services	FLSA: Non-Exempt/Represented
Evaluated by: City Engineer	Salary Grade: 118

**Summary**

An employee in this position works under the direction of the City Engineer to perform advanced technical engineering support or engineering-related assignments, applying technical knowledge across a spectrum of engineering design, construction, inspection, and permit processing functions for City infrastructure and related Capital Projects and development projects. This position performs complex technical concepts through final design layout which includes preparing specifications and creating CAD drawings for a variety of projects. This position also assumes lead responsibility for the City regarding all CAD issues. This position is responsible for the development, implementation, and maintenance of the City’s Geographic Information System (GIS), which includes collection and synthesis of data for public utilities. This position also retains the departmental responsibility for establishing, revising and modifying the City’s Engineering Standards and specifications, aids in City Surveying functions and provides support for records research.

**Distinguishing Career Features**

The Senior Engineering Technician-Design/GIS represents the senior-level in the engineering technician pathway within Development Services. The Senior Engineering Technician-Design/GIS requires the ability to perform work across a wide range of plan review, construction inspection, and permit issuance duties. This position specializes in GIS and CAD. The Senior Engineering Technician-Design/GIS serves as a technical subject matter leader and may perform limited scope engineering work subject to final review of a professional engineer. This classification is distinguished from the Engineering Technician II by the greater complexity of assignments and level of independent decision-making required of this position.

**Essential Duties and Responsibilities**

- Act in the lead capacity for CAD drawing generation and as bid package coordinator for preparing contract drawings and specifications.
- Act in the lead capacity for field investigations, as-built documentation and placed quantity measurements related to facility modifications, new infrastructure construction and rehabilitation projects as required to produce finished Record Drawings.
- Provides lead direction to staff as Project Manager for assigned projects.
- Organizes, schedules and assigns work within the GIS program.

- Provides a variety of professional GIS development and technical coordination duties.
- Coordinates with other City departments and regional GIS experts to better utilize the GIS data within the program.
- Provides all activities related to the City's GIS to include reviews and keeps current on changes within the GIS program arena and provides technical training and support.
- Provides support and training for the GIS Centric Pavement Management System (PMS). Also, performs updates and maintenance to the PMS Database when necessary.
- Prepares all necessary reports, presentation materials, and miscellaneous correspondence required for documentation and use of GIS and related systems.
- Creates a variety of planimetric maps for use by departments throughout the City, using all available data from a variety of sources (i.e. CAD, GIS, TIFF, PDF, JPG, BMP, Word, Excel).
- Perform quantity take-offs and cost estimates as required.
- Directly supports engineering staff in the timely execution and completion of complex design projects.
- Act in a liaison capacity to ensure that consultant designs are complete and performed in accordance with City records management policies. Responsible for coordinating the internal technical quality assurance process for construction packages. Directly responsible for ensuring that all drawings submittals are performed according to the City's drafting and graphics standards.
- Directly responsible for the development and maintenance of City design standards manual including standard symbols, abbreviations, details, forms, etc.
- Creates, maintains and updates engineering records and files as appropriate.
- Oversees and develops analysis and evaluation of operational and maintenance procedures as they relate to the data collected.
- Serves as the division IT specialist. Providing initial troubleshooting, answering software related questions, software training and software purchase and maintenance.
- Aids in City Surveying functions.
- Provides support for records research.
- Other duties as assigned, including support for other department staff as required; the scope of the assigned area of responsibility dependent on departmental structure and is at the discretion of the Development Services Director.

## **Qualifications**

- **Knowledge and Skills**

The position requires specialized knowledge of basic principles of civil engineering; construction and inspection methods and materials testing techniques; principles of engineering designing procedures; applicable engineering standards and development codes; principles and terminology of public works; water/sewer systems; geothermal

systems; streets and paving; word processing and spread sheet programs. Requires working knowledge of the laws, regulations, and codes governing municipal public works and construction.

The position requires skills in using Computer Aided Drafting (AutoCAD), Geographical Information System (GIS), computer assisted drafting equipment and software, networks, scanners, plotters and negotiating the storage of data on server systems, as associated with the assignment is desired. The position requires proficiency in AutoCAD Civil 3D; Esri Enterprise Software, and digital imaging and mapping including digitizing information into a GIS. Requires proficiency with Microsoft Office applications and general computer work.

Requires knowledge of the methods and techniques used in citizen involvement and external communications. Requires well-developed human relations skill to conduct persuasive discussions with diverse audiences, present ideas clearly, resolve conflict, and convey technical concepts to others.

▪ **Abilities**

Read and interpret documents such as construction contract documents including design plans and specifications, standards, requirements; technical instructions in mathematical or diagram form; to write routine reports and correspondence; to perform arithmetic computations; maintain and prepare records and reports; operate a variety of appliances and equipment; establish and maintain effective working relationships. Incumbents must demonstrate the ability to handle job stress and interact effectively with others in the workplace. Ability to respond intelligently and effectively to common inquiries or complaints from customers, regulatory agencies, or members of the business community. The City of Klamath Falls has a specific emphasis on service to our customers. Our goal is to create a positive, productive and courteous atmosphere for our employees and customers. Employees are evaluated on the quality of customer service they provide.

▪ **Physical Abilities**

Requires sufficient ambulatory ability to move about to office and other locations. The employee must regularly lift and/or move up to 60 pounds. Requires auditory ability to carry on audience, ordinary, and telephonic conversation. Requires near and far visual acuity to read detailed maps, drawings, other printed material, computer screens, and observe physical layouts. Specific vision abilities required by this job include close vision, peripheral vision, depth perception, and the ability to adjust focus. Requires manual and finger dexterity to write and to operate microcomputers and other office equipment. Ability to alternatively sit and stand for sustained periods of time to perform counter work. While performing the duties of this job, the employee is regularly required to: stand; walk; sit; use hands to finger, handle, or feel objects, tools, or controls; reach with hands and arms; and stoop, kneel or crouch; and talk or hear. Employee is occasionally required to climb or balance.

▪ **Education and Experience**

Any combination of education and experience that would provide the required knowledge and abilities is qualifying. A typical way to obtain the knowledge and abilities would be:

A bachelor's degree with an emphasis in civil engineering, transportation engineering, drafting, GIS or related field from an accredited college; and a minimum of four (4) years' increasingly responsible experience in GIS and civil, structural, architectural, mechanical, electrical design and drafting sufficient to successfully perform the essential duties of the job.

OR

An associate's degree in related field plus minimum of six (6) years' of increasingly responsible experience in GIS and civil, structural, architectural, mechanical, electrical design and drafting sufficient to successfully perform the essential duties of the job. All education and field experience requirements must be verifiable from records of satisfactory completion.

Applicant must demonstrate:

- Proficiency with Microsoft Office applications and general computer work.
- Knowledge of sitework construction practices, utility designs, commonly used products and materials, and the related function of utility systems.
- Skill in using Computer Aided Drafting (AutoCAD), Geographical Information System (GIS), computer assisted drafting equipment and software, networks, scanners, plotters and negotiating the storage of data on server systems, as associated with the assignment.
- Current technical/professional knowledge of basic principles, methods, standards and techniques associated with civil engineering.
- An understanding of mathematical concepts and drafting techniques; state and local statutes, codes, and regulations; recordkeeping principles and practice, databases and filing systems.

▪ **Licenses and Certificates**

- Valid Oregon Driver's License. New employees establishing resident status in the State of Oregon must obtain an Oregon driver's license within 30 days.
- At time of employment a national or state Civil Design and Geographic Information Systems certification is required.
- Completion of the NCEES Fundamentals of Engineering exam with a passing score is desirable.

▪ **Working Conditions**

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions. While performing the duties of this job, the employee regularly works in outside weather conditions. The employee occasionally works near moving mechanical parts; in high, precarious places; and is occasionally exposed to fumes or airborne particles. The noise level in the work environment is usually moderate.

▪ **Pre-Employment**

Job offers for this position are contingent on the individual passing a pre-employment drug screen and fit-for-duty exam.

The City of Klamath Falls is an Equal Opportunity Employer. In compliance with the Americans with Disabilities Act, the City of Klamath Falls will provide reasonable accommodations to qualified individuals with disabilities and encourages both prospective and current employees to discuss potential accommodations with the employer.