

**CITY OF SALEM  
GIS ENGINEERING TECHNICIAN**

**00105**

**NATURE OF WORK**

This is technical, moderately complex GIS engineering work.

Work involves responsibility for skilled use of GIS engineering principles and techniques to design, link, or work with data tables, enter or merge and maintain GIS data, and produce GIS related products in support of various departments throughout the City. Work includes on-going projects and special one time projects. Work also includes responding to public inquiries by providing technical assistance typically over the telephone. Work may be concentrated in a particular area of assignment or may involve several major areas of emphasis. Work is performed in a team environment, and incumbents need to be able to fill-in as necessary in any specific area. Work is performed under occasional supervision with the use of independent judgment.

Work of this class is distinguished from that of the Senior GIS Engineering Technician by the level of responsibility, level of expertise and independent judgment, level of supervision, and the requirement of the Senior level to act as a technical resource to the department. The work of this classification is distinguished from that of other GIS oriented work or technical engineering work by the knowledge and skill in programming complex macros, design of system perimeters, interdepartmental transfer of information, and integrating data into GIS systems, similar to work performed at the Marion/Salem Data Center.

**ILLUSTRATIVE EXAMPLES OF WORK**

(Any single position of a class will not usually involve all of the essential duties listed and many positions will involve essential duties that are not listed.)

Designs, inputs, maintains, organizes, and outputs the City's GIS information. This may include, but is not limited to, City storm, water, sewer and street data, city-wide digital orthophotography, and city-wide elevation contour and terrain model data. Accessing outside data may require complex translation routines be developed.

Designs and creates specialized map products in digital or hard copy formats for City staff and the public.

Makes recommendations regarding the development, alteration, or refinement of computer assisted mapping methods, procedures, or techniques to better meet specified mapping requirements.

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Creates AMLs (Arc/Info macros) to efficiently access the data and more easily produce work product and to integrate data into the GIS system..

Researches, reads, and compiles source information for mapping, sometimes requiring field trips to collect and/or to verify data.

Ensures all departments that need current GIS information are properly updated along with any other needed reports.

Works with the subdivision checking procedures, utilizing coordinate geometry and translation to update the GIS system.

Answers the telephone to assist and respond to questions from the public.

Performs other related work as required.

### **WORK QUALIFICATIONS**

Experience in performing cartographic or engineering drafting tasks, including development and design of base maps and large scale detail maps using a variety of resources; completion of a two-year technical course with an associate degree from an accredited college with major course work in engineering, surveying, or mathematics; or any equivalent combination of experience and training which provides the following knowledge, skills, and abilities:

Considerable knowledge of City mapping standards and requirements.

Knowledge of GIS application programs and GIS database design.

Knowledge of mapping techniques, procedures, and materials, mapping principles, mathematics and coordinate geometry, and related surveying and drafting techniques and procedures.

Knowledge of computer assisted mapping techniques and of both the software and hardware components of the system, including computer operation.

Skill developing macros using Arc/Info software.

Ability to develop and design base maps and detail large scale maps using survey information, deeds, maps, and aerial photos through computer assisted mapping methods.

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Ability to perform projects from beginning to completion with limited supervision.

Ability to read, interpret, and reconcile legal property documents and exhibits.

Ability to read, interpret, reduce, and adjust survey field notes to Oregon State Plane Coordinates.

Ability to operate UNIX and DOS based computer graphics work stations and digitizing equipment.

Ability to anticipate future needs/uses and develop systems that can easily accommodate them.

Ability to work as a team and also to work independently to complete assignments, produce needed reports, and maintain the integrity of base map information.

Ability to formulate recommendations relative to the development, alteration, and refinement of computer assisted mapping methods.

Ability to establish and maintain effective working relationships with a wide range of internal and external contacts.

Ability to determine best approach to satisfy customer needs given limited time and resources.

Some positions may require possession of a valid Oregon Class C Driver's License and the ability to meet City driving standards.

Work is performed in an office setting during regular business hours. Work involves sufficient mental concentration and visual acuity to operate computer software involving a variety of detailed information in various print sizes. Work involves sitting for up to two hours, handling various size maps and utilizing a variety of desk top equipment and drafting aids. Work involves an office setting with the usual background noises, interruptions, communications by telephone, e-mail, and in meetings.