

WATER TECHNICAL DESIGN SPECIALIST

Definition:

Under general supervision, performs a variety of sub-professional water utility engineering and other water utility tasks; performs development project plan checking and permit preparation relative to water issues; performs routine design and computer aided drafting related to water facilities and performs related work as required.

Essential Duties and Responsibilities:

The essential duties and responsibilities of the class include the following:

Produces detailed layouts and finished drawings for water facilities from preliminary design sketches and field notes.

Performs routine design work for pipeline layouts.

Researches and obtains records of existing utilities to assist in water facility design.

Plan checks water system improvement plans for compliance with City design criteria.

Plan checks building/development plans for water facility requirements and upgrades.

Coordinates with other City departments, contractors, engineering consultants and the public regarding project plans and documentation.

Maintains and updates City maps, atlas sheets, engineering plans and related records.

Collects and tabulates fees and deposits for development projects.

Calculates bond estimates for building/development water system improvements.

Prepares permits and work orders.

Maintains development files.

Responds to inquiries from the general public.

Prepares blueprints and copies of maps.

Reviews utility easements.

Writes, reviews, analyzes and prepares a variety of records, reports, correspondence and other data

Conducts on-site field investigations to obtain design data.

Drives a vehicle on City business.

Assists management in reviewing developer plans.

Assists with the update of water standard plans and specifications.

Other Duties and Responsibilities:

Performs other projects/tasks as assigned.

Class Characteristics:

The Water Technical Design Specialist is a single incumbent technical position within the Water System Management Division of the Engineering Department. The incumbent performs a variety of sub-professional general and technical tasks specifically related to water utility engineering and water issues.

Contacts and Relationships:

The Water Technical Design Specialist has contact with other Engineering Department staff, staff in other City departments and the public.

Qualification Guidelines:

The knowledge and abilities which are required to perform the duties and responsibilities of this class are as follows:

Knowledge of:

Drafting methods used in the preparation of engineering drawings and maps to include computer aided drafting.

Routine design principles for water facilities.

Methods, materials and equipment used in water utility construction.

Basic principles of water production and distribution.

General water industry standards, plumbing codes and health and safety codes.

Engineering office practices and procedures.

Intermediate math to include routine engineering calculations.

Computer applications as they relate to area assigned.

English usage, spelling, punctuation and grammar.

Ability to:

Read and interpret engineering maps and drawings.

Use drafting instruments.

Operate a personal computer and use applicable software programs.

Perform routine engineering calculations.

Understand and carry out oral and written directions independently.

Read and interpret plumbing codes and plans.

Physically inspect water facility construction sites.

Maintain accurate records.

Read and write at the level required for successful job performance.

Make oral and written presentations.

Establish and maintain effective relationships with those contacted in the course of work.

Communicate effectively orally and in writing.

A typical way to obtain the knowledge and abilities is as follows:

Education: Associate of Arts Degree from an accredited college in Water Science or a closely related field to include course work in computer aided drafting.

AND

Experience: Three years of experience in drafting/design for civil engineering projects to include some computer aided drafting/design experience.

Physical Tasks and Working Conditions Include the Following:

Work is performed indoors in an office environment and outdoors when inspecting water related construction sites. When work is performed outdoors, there may be exposure to the elements. The incumbent stands and walks on level, uneven and/or slippery surfaces, climbs stairs and inclines, kneels, bends, reaches and crouches. When inspecting water related construction sites the incumbent may be exposed to construction hazards, equipment and materials to include grease, fumes, dust, machinery and chemicals used in the water industry to include chlorine, ozone and ammonia. The Water Technical Design Specialist drives a vehicle on City business. Indoor office work requires sitting at a desk or table for periods of time and the use of a computer and screen. The incumbent must be able to meet the physical requirements of the class and have mobility, vision, hearing and dexterity levels appropriate to the duties to be performed.

Special Requirements:

Valid and appropriate California Driver's license and acceptable driving record at time of appointment and throughout employment in this position.

Must be able to work flexible and extended hours to accommodate City needs.

Other:

Possession of or ability to obtain a Water Treatment Operator 2 Certificate and/or a Distribution Operator 2 Certificate as issued by the State of California is preferred but not required.

Fair Labor Standards Act Designation: Non-exempt.

Established April 2001 from the class of Utilities Technician