

PUBLIC WORKS FIELD TECHNICIAN

DEFINITION

To perform the administration of construction contracts; to inspect the construction of improvements built within City property for conformance with City, State and industry plans, specifications, codes and contract provisions; to perform electronic data processing systems assignments; and to provide technical support to an assigned supervisor.

DISTINGUISHING CHARACTERISTICS

This is the journey level in the single level Public Works Field Technician class. Incumbents initially perform the more routine duties assigned to positions in this series and work under close supervision. However, as experience is gained, incumbents are expected to perform the full range of duties as assigned with increasing independence.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision from the assigned supervisor; and may receive technical and functional supervision from more experienced staff.

EXAMPLES OF ESSENTIAL DUTIES - Duties may include, but are not limited to, the following:

Use a detailed knowledge of construction equipment, materials and practices to perform on-site inspections and direct contractors in the acceptable installation, repair, maintenance and operation of water, sewer, drainage, streets, signals, and other related public works infrastructure; monitor contractors' compliance with applicable safety rules and regulations and take appropriate action to maintain field construction safety.

Meet with the public and contractors to explain public facilities, property locations, boundaries, and interpret improvement plans.

Perform and assist with the compilation of plans, specifications and layouts for engineering projects; prepare precision drawings of preliminary construction plans; plot profiles, cross-section, streets and utilities, right-of-way and topographic features using computer aided design software; search records and assist in the preparation of legal descriptions of property; produce, interpret and translate survey field notes.

Investigate public complaints regarding traffic conditions and signal equipment operation; perform or direct others to perform such adjustments, repairs, or replacements as required; assist in gathering traffic data and in the drafting of traffic related plans and diagrams.

Enter and retrieve data from electronic data processing systems; compile maps from GIS printouts, draw exhibits and sketches and produce "not to scale drawings;" inspect traffic

projects to enforce compliance with plans, specifications, and standards; establish and update information, generate documents and correspondence, update computer system files; prepare, review, and maintain accurate and complete, forms, files and other necessary records.

Make field repairs to traffic signals systems including flashing beacons, microprocessors, relays, switches, fuses and controller cabinet parts, and lighting equipment; assist with the repairs of traffic signals and beacon equipment, including poles, signal heads, signal hardware, controllers and service equipment; perform scheduled preventive field maintenance activities.

Make recommendations and assist traffic engineering staff to upgrade and modernize the signal infrastructure and update signal timing changes; make signal timing changes as directed and ensure that proper timing is restored after repairs have been made.

Mark and locate field signals, lighting and beacon systems and underground infrastructure for the Underground Service Alert Program (USA); perform various testing for subgrade compaction and concrete structural work; prepare work orders for a variety of Public Work service and maintenance contracts.

Build and maintain positive working relationships with co-workers, other City employees and the public using principles of good customer service.

Foster an environment that embraces diversity, integrity, trust, and respect.

Be an integral team player, which involves flexibility, cooperation, and communication.

Perform related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

Methods, materials, tools and equipment used in engineering and construction.

Uses and physical characteristics of construction materials, surveying and drafting equipment, electronic and geographical information systems; field engineering and inspection practices and basic design criteria for construction projects.

Applicable City, State, and industry laws, ordinances, regulations, codes and standards.

Safe work practices and regulations pertaining to the work, mathematics, including trigonometry and algebra.

Basic surveying principles and practices.

Basic materials and soils testing techniques and terminology, principles, practices, and instruments used in drafting, lay-out design and map interpretations.

Public Works policies, procedures, construction standards, design and land use regulations and ordinances.

Modern office procedures and equipment.

Working knowledge of electrical testing and locating equipment, occupational hazards and safety precautions related to the work.

Methods, materials, tools, equipment and practices used in the installation, operations, maintenance and repair of traffic signals and other signaling and safety devices.; and electrical practices, principles and components as related to traffic signals and associated equipment.

Relevant local, State, and Federal laws, rules and regulations related to area of assignment.

Ability to:

Perform skilled inspections of varied public works and related projects; administer construction contracts and inspect the construction of improvements built within City property for conformance with City, State and industry plans, specifications, codes and contract provisions and read and interpret drawings, plans, specifications and contracts.

Intermittently, review and evaluate documents related to department operations; observe, identify and problem solve office operations and procedures; understand, interpret and explain department policies and procedures; explain operations and problem solve issues for the public and with staff.

On a continuous basis, sit at desk for long periods of time or walk and stand while in the field; climb ladders; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; use telephone; write or use a keyboard to communicate through written means; and lift or carry weight of 50 pounds or less.

Perform electronic data processing systems assignments and work independently and make sound decisions relating to work methods and tools used on electrical traffic control devices.

Perform work at heights and work in emergency and hazardous situations.

Interpret signalized intersection drawings, traffic operation timing sheets and electrical schematic drawings and maintain accurate records and prepare reports of work performed.

Operate computerized equipment and related traffic signal programs; gather data for engineering computations, make accurate engineering calculations and use and adjust precision surveying instruments;

Perform drafting and assist in the preparation of designs, plans and reports and read and understand technical descriptions.

Take notes and photographs and make sketches in varying weather and climate conditions.

Use sound judgment in recognizing scope of authority.

Operate and use modern office equipment including computers and applicable software.

Maintain regular attendance and adhere to prescribed work schedule to conduct job responsibilities.

Utilize appropriate safety procedures and practices for assigned duties.

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

Work with various cultural and ethnic groups in a tactful and effective manner.

Communicate clearly and concisely, both orally and in writing.

Experience and Training

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

Experience and Training:

Equivalent to either:

Graduation from high school, supplemented by mathematics coursework through trigonometry and at least four years of experience in engineering technical support, inspection, plan checking or surveying, and/or traffic signal maintenance;

OR

Completion of two years of college level coursework in pre-engineering, construction technology or a related field supplemented by one year of such experience.

License and Certificate

Possession of a valid California Class C Driver License may be required at the time of appointment. Failure to obtain or maintain such required license(s) may be cause for disciplinary action. Individuals who do not meet this requirement due to a physical disability will be considered for accommodation on a case-by-case basis.

Must possess or have the ability to obtain, within six-months of hire, a State of California certification to operate nuclear compaction equipment.

Possession of a Certificate of Completion from the International Municipal Signal Association for a Traffic Signal Technician Level I, or equivalent certificate is required within six-months of hire and an American Concrete Institute field testing certification is highly desirable.