

# ENGINEERING INSPECTOR

## JOB SUMMARY

Under general supervision, performs independent construction inspections, reviews developer plans for conformance to District codes, policies, and standards; works at Engineering Public Services counter with developers, engineers, contractors, and the general public; performs minor designs and assists in design and construction of Capital Improvement Program (CIP) projects; prepares Board exhibits and presentations; and performs related work as required.

## EXAMPLES OF DUTIES

*(Duties include but are not limited to the following):*

- Performs independent construction inspections and testing to assure private developer projects and CIP projects are constructed in conformance with approved plans and specifications.
- Reviews developer plans for conformance to District codes, policies, and standards.
- Performs checking of calculations, plans, specifications, shop drawings, and construction submittals for completeness, accuracy, and conformity to District standards and project requirements.
- Supervises consultants in gathering material samples for examination or analysis by laboratories, including tests on soils and concrete.
- Assures that construction contracts are based on approved plans and approved change orders.
- Organizes and facilitates pre-construction meetings, establishes agendas and issues minutes.
- Performs minor design work such as site layout and pipeline alignment, facilities siting and associated calculations.
- Performs duties of project manager on various projects.
- Prepares written correspondence to developers, engineers, contractors, and the general public.
- Prepares daily activity reports and updates project schedules.
- Documents construction progress, measures unit bid items, monitors job sites, and takes photographs.
- Keeps detailed records of construction work progress, including as-builts drawings, verifies invoices, and issues notices of completion.
- Completes project closings and notifications to surety and insurance carriers.
- Reviews survey data and procedures to see that line, grade and locations have been properly established and that they are followed during construction.
- Confers with engineer of record regarding work or materials that deviate from contract plans or specifications, and field contingencies which necessitate modifications in plans or specifications.
- Confers with property owners regarding project schedules, hazards and inconveniences, and schedules service interruptions with the least interference and inconvenience to property owners.

- Coordinates construction efforts between contractor work and District work.
- Assures pressure testing of pipelines and collection of water samples for bacteriological testing and chlorine tests.
- Ensures compliance by contractors of safe work procedures.
- Prepares and maintains standard documentation using manual and computer aided tools and design (CADD) methods.
- Performs administrative tasks, such as consultant selection and bid evaluations for assigned projects.
- Documents processes by creating and maintaining guidelines.
- Performs other related duties as assigned.

### **EMPLOYMENT STANDARDS:**

#### Knowledge of:

- Laws, statutes, codes and ordinances governing water facility construction projects including ACI, NEC, AWWA, ASTM, federal, state, county and local regulations.
- Relevant District codes, policies and procedures.
- Principles and procedures of construction inspection.
- Water system operation, installation and applicable District procedures.
- Safety requirements and procedures pertaining to safe work practices, as well as federal and state regulations.
- Computer applications relevant to the inspection process and contract administration.
- Principles and practices of engineering, hydraulics, electronics, chemistry and mathematics, including algebra, geometry and trigonometry as they relate to inspection activities.
- Construction surveying, compaction and material testing principles, methods and techniques.
- Materials, equipment and tests used in construction and laying of pipelines, construction of concrete structures and installation of valves, meters and other water and sewer appurtenances.
- Blueprints, specifications, plans and drawings as they relate to water distribution services.

#### Ability to:

- Analyze and interpret complex water facility construction plans and specifications.
- Maintain documentation and records of construction work and prepare related periodic reports.
- Ensure that construction projects are performed in accordance with safety standards and regulations.
- Enforce and interpret regulations with firmness, tact and impartiality.
- Correspond with developers, contractors, engineers and the public in an effective manner.
- Make quantity calculations and prepare estimates.
- Plan, budget, schedule, and organize projects and carry on simultaneous assignments with close attention to detail, schedules, and deadlines.
- Interpret District codes, policies, and standards.
- Make sound decisions.
- Identify and analyze issues quickly and completely and recommend alternative solutions and implement approved recommendations.
- Operate a District vehicle observing legal and defensive driving practices.
- Communicate clearly and concisely, both orally and in writing.
- Establish and maintain cooperative working relationships with employees, contractors, developers, consulting engineers and the public.

Experience and Education:

Any combination of training, experience and education that could likely provide the required knowledge and abilities stated above, and the ability to perform the duties of the position would be qualifying. A typical way to obtain the knowledge and abilities would be:

Experience: Three (3) years of experience in a variety of engineering or construction related work involving drafting, inspection, construction and minor design projects.

Education: Formal or informal education or training at a level which ensures the ability to read, write, and perform mathematical computations and write reports at a level necessary for successful job performance, and supplemental coursework to meet certification requirements. Associate of Science degree in engineering, science or mathematics is desirable.

Licenses and Certificates:

Possession of a valid California driver's license, Class C, with ability to maintain insurability under the District's insurance carrier.

Physical Demands:

See to read fine print; have depth perception; hearing and vision within normal ranges; sit or stand for prolonged periods; use hands and fingers to manipulate small objects and print and write legibly; be able to effectively communicate orally, both in person and over the telephone, and in writing; lower body mobility to stand, walk, stoop, bend, crawl and extend legs; crawl through pipelines, climb ladders; able to traverse uneven ground at construction sites.; regularly lift over 50 pounds and frequently, over 100 pounds, with assistance; be exposed to harsh substances; be exposed to foul odors within acceptable ranges/levels; work in confined spaces; incumbents may be required to wear protective apparel, including goggles, face protectors, aprons, shoes and self-contained breathing apparatus as required by OSHA standards.

**OTHER REQUIREMENTS:**

May be required to work evenings, weekends and/or holidays.

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