

ASSOCIATE ENGINEER

DEFINITION

Under direction of the District Engineer, to plan, organize and supervise capital improvement projects and complicated professional engineering work related to the wastewater treatment plant and collection system.

SUPERVISION EXERCISED

May exercise technical and functional supervision.

IMPORTANT AND ESSENTIAL DUTIES

1. Coordinate capital improvement program projects, including studies, design engineering, work of consultants, requests for proposals, and inspections.
2. Provide technical input to treatment plant and collection system staff on system modifications, including lift stations, sewer mains, and related projects.
3. Administer and enforce District codes and standards on engineering projects.
4. Prepare or direct the preparation of progress payments, change orders, and reports, including text, charts, maps, diagrams and sketches on engineering subjects of substantial difficulty.
5. Prepare project status reports and make oral and written presentations.
6. Assign routine investigation, design and drafting tasks to technical subordinates; request survey, mapping and data collection; review completed work; assist in providing solutions to difficult problems.
7. Prepare estimates and feasibility reports for new or modified services and structures.
8. Design and maintain electronic spreadsheets and databases.
9. Perform engineering office work and fieldwork as assigned.
10. Advise District Engineer on status and technical issues related to assigned design work and projects.
11. Research publications and industry information sources to remain current with modern developments, principles and procedures.
12. Investigate field problems affecting property owners, contractors, and maintenance operations.

13. Participate in the planning, reviewing, and processing of plans for private developments affecting sewers and related District facilities, and ensure that they meet all District-imposed requirements; analyze materials and design data submitted to the District.
14. Prepare various applications for State and Federal grants.
15. Determine conformance of parcel and subdivision maps and improvement plans to District requirements; maintain status of parcel and subdivision maps.
16. Perform other related duties as required.

JOB RELATED AND ESSENTIAL QUALIFICATIONS

Knowledge of:

- Engineering principles and practices as applied to wastewater treatment facilities and collection systems.
- Methods and techniques used in the design and construction of a wide variety of engineering projects.
- Practices and procedures in budget preparation and administration.
- Applicable laws and regulatory codes relevant to wastewater system design, construction and operation.
- Methods, techniques and procedures used in engineering and construction project management.
- Contract administration practices and principles as they relate to construction work, including development of specifications, evaluation of bids, contract monitoring and negotiation procedures.
- Public agency bidding, contracting and purchasing policies.
- Safety hazards and appropriate precautions applicable to work assignments.

Ability to:

- Understand and carry out complex oral and written instructions; schedule and oversee the work of other technical personnel.
- Prioritize work and manage time appropriately to complete all assigned projects in a timely manner.
- Operate computer-aided drafting and design software, and generate sketch drawings.

- Operate modern office equipment, including computer equipment.
- Operate a motor vehicle safely.
- Recommend and assist in the implementation of goals, objectives, and practices for providing effective and efficient engineering design services.
- Manage large, complex projects to completion within scheduled deadlines.
- Estimate engineering and construction costs; prepare bid specifications; negotiate consultant contracts.
- Prepare and administer large project budgets.
- Perform complex calculations, including, but not limited to present worth analyses on proposed projects.
- Prepare clear and concise administrative and financial reports.
- Analyze problems, identify solutions, project consequences of proposed actions, and implement recommendations in support of goals.
- Interpret and apply Federal, State and local policies, procedures, laws and regulations, particularly in contract administration.
- Communicate clearly and concisely, both orally and in writing.
- Establish, maintain, and foster positive and harmonious working relationships with those contacted in the course of work.

EXPERIENCE AND TRAINING GUIDELINES

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

Experience:

Five years of experience in civil or sanitary engineering; experience with management of wastewater treatment plant and/or collection system projects desirable.

Training:

Equivalent to a Bachelor's of Science degree from an accredited college or university with major course work in civil engineering, sanitary engineering or related field.

License or Certificate:

Possession of, or ability to obtain, a valid California driver's license from the California Department of Motor Vehicles, and a DMV record that meets the District's driving standards.

Possession of a Certificate of Registration as a Professional Engineer issued by the California State Board of Registration. If the registration is issued from another state, California registration must be obtained within one year from date of hire. Fifteen years of experience working in civil or sanitary engineering roles with increasing responsibility can be substituted for the Certificate of Registration as a Professional Engineer.

WORK ENVIRONMENT/PHYSICAL DEMANDS

The physical demands and work environment described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

While performing the duties of this job, the employee is mostly working in a standard office environment, where s/he is frequently required to stand; walk; sit; use hands to finger, handle, or feel; reach with hands and arms; stoop, kneel, crouch, or crawl; and talk or hear. The employee must occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, depth perception, and ability to adjust focus. Additionally, the employee is occasionally exposed to outside weather conditions, entry into confined spaces, electrical hazards, mechanical hazards, use of ladders or platforms, and walking on uneven terrain, gravel, or mud. The noise level when working in the field is usually loud.

Effective Date: September 1992

Updated: August 1995 & June 2005

Reinstated by the Board: August 2, 2005

Updated: June 2010

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