JOB DESCRIPTION
ASSOCIATE ENGINEER

GENERAL

Under general direction of the District Engineer, performs intermediate to advanced professional project management, specialized engineering or developer/building plan reviews; may serve as a project engineer on difficult, complex projects; applies advanced engineering knowledge to the solution of design, maintenance, improvement and construction problems pertaining to the District's infrastructure and private development; and performs related duties as assigned.

Carries projects through from inception to completion, manages several projects at once and/or manages a complex project in a specialty field; and performs related work as assigned. Incumbents may oversee, coordinate and review the work of support staff and technicians.

SUPERVISION RECEIVED

Works directly with and under the general supervision of the District Engineer who reviews work for accuracy and conformance to established policies and procedures.

SUPERVISION EXERCISED

Oversight and supervision of subordinate staff and as directed by General Manager and District Engineer. Candidate will be privy to and hold confidential information and will participate in management meetings regarding District policies and procedures. Fills in for the District Engineer when needed.

CHARACTERISTICS

Responsible for intermediate to complex engineering assignments requiring the use of judgment and initiative in developing solutions to problems; responsible for planning future system needs and developing, implementing and monitoring major construction and/or developer projects from start to completion; may oversee, coordinate and review the work of professional and technical personnel; responsible for coordinating closely with District Superintendent on many aspect of water system operations, maintenance and related functions, such as Asset Management; responsible for managing and maintaining records, drawings, specifications, maps, etc. in electronic GIS format and CAD.

The Engineering Associate is distinguished from the District Engineer in that incumbents in the latter class exercise a higher degree of independent judgment on diverse and specialized assignments with a greater degree of accountability and ongoing decision making. The latter class also requires registration as a Professional Engineer.

DUTIES AND RESPONSIBILITIES/EXAMPLES OF WORK

1. Performs engineering planning for major capital construction and/or maintenance programs; researches and plans system and facilities requirements; researches District records and historical design data; outlines requirements and coordinates activities for surveying and drafting to develop contract documents; secures needed project permits or assists in their acquisition.
2. Designs, reviews and constructs engineering plans and drawings; prepares sketches of plan layouts and diagrams; selects standard details and equipment; prepares specification provisions; assembles bid packages; reviews and approves non-standard building permit

plans; undertakes modeling and data management efforts; analyzes and performs advanced and complex engineering calculations.

3. Serves as project engineer and performs project management work on various engineering and construction projects; establishes design criteria and progress schedules; serves as liaison between District, contractors, consultants and utilities or other agencies; develops cost estimates and monitors project costs and progress; reviews and approves invoices for progress payments; arranges, facilitates and attends pre-design and pre-construction meetings; reviews and approves material submittals; makes field design changes and recommends and negotiates change orders; prepares project budgets; prepares closing documents to be submitted to the District Engineer and General Manager and official files; prepares, reviews and approves work orders; develops and analyzes project alternatives; monitors completed projects in case of needed warranty repairs.
4. Reviews and monitors work by outside consultants and administers consultant contracts; prepares standard operating procedures and requests for proposals; evaluates and rates proposals; negotiates scope of work and contract terms; evaluates project schedules; authorizes payments; prepares contract documents for bidding, including cost estimates and project schedules; advertises for and evaluates project bids; reviews consultant designs and plans to ensure conformance with specifications.
5. Reviews developer plans for conformance with District standards and service rules; responds to developer inquiries regarding requirements for development; monitors and reviews progress of developer projects.
6. Monitors work in progress, including monitoring and conducting regular and emergency field investigations and inspections, to ensure compliance with approved plans, specifications and standards; analyzes data and results of instrument readings; prepares inspection reports.
7. Compiles and maintains project records, documents and databases (including intersection details and maps); maintains work order logs and ensures documents are updated to reflect changes; develops and designs databases for project data.
8. Investigates customer requests and complaints and explains findings to customers; prepares notarized letters answering requests for legal purposes; testifies in court as needed; assists applicants with District policy interpretations and resolution of conflict.
9. Prepares and delivers presentations of technical data and results to the Board and other interested parties as needed; keeps up-to-date on current technology through reading professional literature, attending conferences and training sessions.
10. Attends public meetings to present project plans; reviews and analyzes construction projects planned by other agencies for potential impact on District operations; confers with personnel from other agencies regarding current and proposed construction projects.
11. Assists in preparation of the District budget and Capital Improvement Projects and manages the engineering budget.
12. Prepares a variety of special engineering studies, correspondence, records, files and reports.
13. Assembles stakeholder groups, conducts meetings and develops consensus; attends a variety of meetings to determine citizen concerns, discuss potential solutions and limitations, identify course of action and initiate solutions.
14. Participates in cross training as time allows to assist other personnel. Takes on additional assignments as requested and assists with other positions as needed.

OTHER DUTIES

1. Defines, initiates and assists in negotiating the acquisition of easements.
2. Assists in preparation of budget requests and justifications for section or unit; maintains

records of cash flow for special projects or funds; assists in preparation of justifications for capital improvement projects; assists supervisor in development of projected staffing needs and other information needed in budget preparation.
3. Obtains all necessary federal, state and local permits.
4. Conducts field investigations and site reconnaissance to assess site conditions and identify potential problems or hazards.
5. Reviews technical data for new products, methods or systems.
6. Attends training sessions and conferences.
7. Reviews, maintains, updates and recommends changes to manuals, policies and procedures.

MINIMUM QUALIFICATIONS

Knowledge of:

1. Theory, principles and practices of civil engineering design and project management.
2. Principles of physics and mathematics applicable to engineering.
3. Asset Management.
4. Principles and practices of contract administration and project management and evaluation.
5. Principles, modern techniques and equipment used in design, construction and maintenance of various public works projects.
6. Strength, properties, uses and testing methods of construction materials.
7. Legal guidelines for public works engineering.
8. Public relations.
9. Computer applications pertaining to the work.
10. Administrative principles and methods including goal setting, program/project development, cost estimating, performance management, planning and scheduling, problem solving, conflict resolution and communications.
11. Codes, regulations and guidelines pertaining to the work.
12. Theory and principles of environmental protection and control.
13. Currently accepted principles and practices in staff direction and training.
14. Drafting techniques, including basic computer-assisted drafting.
15. Soil mechanics, erosion control, and geotechnical principles.
16. Hydraulics as applied to the design of water distribution pipes and facilities.
17. Surveying terminology, practices, variables, and calculations.

Ability to:

1. Review, prepare or direct the preparation of complex plans, specifications and legal contracts.
2. Prepare and evaluate engineering studies of large projects.
3. Perform difficult technical research and analyze complex engineering and mathematical problems, evaluating alternatives and recommending or adopting effective courses of action.
4. Perform accurate engineering calculations and cost estimates.
5. Exercise independent judgment and initiative within general policy guidelines.
6. Communicate scientific and technical matters to non-technical individuals, including policy makers.
7. Interact effectively, engage in problem solving, and partner with citizens, community groups and contractors.
8. Communicate effectively, orally and in writing.
9. Prepare clear, concise and accurate reports, drawings, maps, notes, correspondence and other written materials.

10. Establish and maintain effective working relationships with those encountered in the course of the work.
11. Prepare, administer and monitor a budget.
12. Use specialized drafting, engineering, surveying or electronic tools, materials and equipment.
13. Derive information from plans, specifications, maps, complex laws, regulations and codes.

EXPERIENCE AND TRAINING
A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a degree in civil engineering; and two years of responsible engineering experience; or an equivalent combination of training and experience. Experience in a public water agency or contractor/consultant is preferred.

SPECIAL QUALIFICATIONS
An Engineer-In-Training Certification, i.e., passed the State Fundamentals of Engineering (FE) examination at time of appointment.

A valid state driver license may be required for certain assignments.

PHYSICAL AND MENTAL DEMANDS
Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.