



Job Classification:	<b>Associate / Civil / Senior Civil Engineer</b>
Representation:	<b>SEIU Local 1021 Union</b>
Wage Schedule Range:	<b>23 / 25 / 27</b>
FLSA Status:	<b>Non-exempt</b>
Effective Date:	<b>January 2015</b>
Revision Date:	<b>February 2018</b>

*Classification specifications, i.e. Job Descriptions are intended to present a descriptive summary of the range of duties and responsibilities performed by an incumbent in the classification. Furthermore, specifications are not intended to reflect all duties and responsibilities of an incumbent in the classification.*

### **Summary**

Under general supervision incumbents in this classification perform a wide variety of engineering design and other technical work in support of the Engineering Department's planned addition of and improvements to water and wastewater treatment, water distribution and wastewater collection facilities throughout the District, including project design and analysis including environmental review; maintaining engineering and construction records; preparing reports; performing engineering calculations; assisting in project planning and budgeting activities, review of the design and engineering work of others; and other duties as assigned.

**Associate Engineer** – This class is distinguished from the journey level by the performance of the more routine tasks and duties assigned to positions within this series. Employees at this level are not expected to perform with the same independence of direction or judgment on matters allocated to the Associate or Senior engineering levels.

**Civil Engineer** – This class is distinguished from the Civil Engineer by the assignment of the full range of professional duties. Employees at this level receive only occasional instruction or assistance as new or unusual situations arise, and are fully cognizant of the operating procedures and policies of the Engineering and Operations departments.

**Senior Civil Engineer** – This level may perform full first-line supervisory responsibilities over other engineering and engineering technician staff, or significant specialized duties including planning, assigning, and evaluating the work of subordinates, and undertakes responsibility and leadership for major projects from initial planning through construction completion or programs areas within the Engineering Department from concept to full implementation.

### **Supervision Received and Exercised**

**Associate Engineer** – This classification level receives technical, functional, and general supervision and direction from the Senior Civil Engineer or from the District Engineer.

Civil Engineer - This classification level receives technical, functional, and general supervision and direction from the Senior Civil Engineer or the District Engineer.

Senior Civil Engineer - This classification level receives technical, functional, and general supervision and direction from the District Engineer or the General Manager. This class may exercise functional and technical supervision and direction over other engineers in the Engineering series.

**Essential duties** - *The following duties are typical for this position. Depending upon the assignment, the employee may not perform all of the listed duties and/or may be required to perform additional or different duties from those set forth below to address District needs and changing business practices. The omission of specific statements of duties does not exclude the position if the work is similar, related or a logical assignment to the class.*

- Participate and/or oversee in the preparation of plans and specifications for the construction of water and wastewater system facilities and associated system elements.
- Research develop, and/or assist in development of project design requirements and criteria; perform complex calculations related to efficacy of proposed design(s).
- Assist in and/or complete preparation of estimates and feasibility reports for new, relocated, or replacement services and facilities.
- Perform and/or update operational system models based on proposed designs and constructed components; prepare reports and recommendations.
- Participate and/or oversee constructability analysis of designs prepared by others, including analysis of design compatibility with District operational standards and installed systems.
- Assist with, review, analyze, participate, and/or complete review and evaluation of plans, environmental impact review activities and documents; specifications, bid documents and the bidding process; confer with appropriate District staff in other departments.
- Review and process necessary permits, right-of-way agreements and other instruments related to use/ownership of District property or right-of-way, or of other public lands and right-of-way that are the District's responsibility.
- Participate in the plan check, review, and processing of plans for private development affecting water and waste water systems and facilities; ensure compliance with District requirements and standards.
- Participate in and/or conduct review of product designs for compliance with engineering principles, company standards, customer contract requirements, and related specifications.
- Assist in or complete facilities planning studies including reviewing land use planning activities for forecasting future service demands and long-term facility needs; identify near-term and project long-term impacts on District facilities; prepare alternatives and recommendations relative to possible system improvements or additions.
- Coordinate planning, design, design review, budgeting, projected construction

schedules, and other activities with Operations and/or other departments or regulatory agencies concerned with technical developments, scheduling, and resolving engineering design and test problems.

- Assist with all phases of project implementation from planning, financing, permitting, environmental review, design, bidding and construction.
- Assist in preparation and/or periodic update of facility master plan documents, the Engineering Department annual budget, and the capital improvement plan and budget.
- Assist in directing software integration, GPS, GIS, and other technical activities.
- Assist the District Engineer with planning and formulating projects according to project requirements.
- Attend and participate in seminars, workshops, and/or training programs to continue to develop technical skills in AutoCAD, Autodesk, GIS, GPS, Water and Sewer System Modeling Software, Microsoft Office Project, pumps, hydraulics, water balances, permits, and other fundamental engineering calculations and procedures as needed. May require out of town and/or overnight travel.
- Establish and maintain an effective and cooperative working relationship with those contacted in the course of the work, including coworkers, through knowledge of work, personal and professional conduct, and good judgment
- Regular attendance and adherence to prescribed work schedule to conduct job responsibilities.
- Perform other related duties as assigned or required for the ongoing operation of the District's business.

**Additionally, specific to the Civil Engineer and Senior Civil Engineer levels**

- Participate in Engineering Committee meetings as directed.
- Evaluate and approve design changes, specifications, and drawing releases, including approving change orders, in accordance with District policies and procedures.
- Prepare presentation materials and make presentations to the Department, the Board, or members of the public as they relate to Engineering Department technical activities, plans, and their costs.
- Provide engineering and technical support to the Operations staff to ensure compliance with water quality regulations. Evaluate impact of new legislation on water/wastewater relative to existing facilities; prepare recommendations regarding design for modifications or new facilities.
- Administer consulting contracts including preparation of requests for qualifications/proposals; perform various project management activities including project-set-up with the Finance Department; monitor contract progress and approve payments; request additional funds in accordance with District policies and procedures.
- Assist with developing and/or updating the District's design and construction standards for water and wastewater system facilities, structures, and appurtenances; ensure these are issued to responsible parties inside and outside of the District who require their use.

- Develop, review and evaluate conditions, capabilities, and capacities of the District's water and wastewater systems, treatment plants and facilities including distribution and collection, for analysis and budgeting of the District's capital improvement program.
- Coordinate projects and operations including engineering planning, design, review, analysis, process improvement plans and related work as required.

**Qualifications** - Any combination of training and experience that would provide the required knowledge, skills and abilities is qualifying.

*Knowledge of:*

- Principles of civil engineering as applied to water and wastewater systems and facilities, public works, and related construction projects.
- Principles and practices of environmental impact assessment and the related regulatory processes.
- Methods, materials, system components, and techniques used in the construction of water and wastewater systems and facilities.
- Industry standard specifications and contract documents.
- Principles of bidding and contracting for public construction, including bid addenda; contract change orders and amendments.
- Principles of contracting for consultant services; managing such agreements.
- Basic surveying, drafting, and computer-aided design techniques.
- Computer software applications for CAD, GIS, GPS, water and wastewater modeling, word processing, spreadsheets, graphics, databases, and project scheduling and management.
- Current developments and trends regarding civil engineering.
- Applicable laws and regulatory codes relative to the areas of assigned responsibility.
- Principles and practices of effective customer service.
- Microsoft Office Suite programs for word processing and spreadsheets.
- Standard business practices such as letter writing, report writing, preparing informational materials in visual formats.
- English language usage, spelling, grammar, and punctuation.
- ***For the Senior level:*** Principles of organization, administration, personnel management including supervision, training and performance evaluation.

*Ability to:*

- Perform professional engineering work.
- Interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables.
- Analyze work, identify and interpret technical and numerical information, observe and define problems, collect data, establish facts, and draw valid conclusions, make recommendations or take actions appropriate to complete assigned work.
- Prepare engineering and other technical computations necessary to perform assigned work.

- Prepare and check engineering plans and specifications; prepare and check engineering reports and studies.
- Read, analyze, and interpret common technical journal articles, environmental documents, financial reports, and legal documents.
- Interpret and explain District policies and standards, and public agency regulations and guidelines.
- Use various sources including the internet to perform research and complete comparative studies.
- Explain regulations, policies, and/or procedures to other staff, contractors, developers, the general public, homeowners, technical/professional associations, and other public agencies.
- Effectively present information to top management, public groups, and/or boards of directors.
- Efficiently use computer programs with sufficient speed and accuracy to perform assigned work; intermediate to advanced skills in Microsoft Office programs.
- Professionally and tactfully provide customer service to the public and others in person, over the phone or through electronic means.
- Use initiative and independent judgment within established procedural guidelines.
- Adapt to changing technologies and learn functionality of new equipment and systems
- Plan, coordinate, prioritize and organize multiple work tasks to meet deadlines with accuracy, thoroughness, and attention to detail, sometimes with little supervision.
- Work independently and prioritize multiple tasks often under time constraints and with limited supervision.
- Read, understand and carry out written and oral directions in a clear, concise, and consistent manner.
- Operate a variety of automated office machines typical of a work environment such as a multi-function printer/copier/scanner machine, fax machine, envelope opener, postage machine, laminator, etc.
- Operate a computer for the effective operation of the Department including word processing, database, spreadsheet, presentations, e-mail, and internet
- Communicate clearly and concisely both orally and in writing with District staff, co-workers, consultants and the public.

**Education and Experience** - Any combination of education and experience which would likely provide the necessary knowledge and abilities is qualifying:

All incumbents in this classification shall have a Bachelor's degree (B. S.) in Engineering from an accredited four-year college or university.

**Associate Engineer:**

- At a minimum must be registered as an E.I.T. with the ability to obtain a P.E. Civil Engineer license within two (2) years. Persons having a P.E. Civil Engineer license

with no experience in designing underground utilities are also eligible to enter at this level.

- Two (2) years of prior professional experience. Experience in designing underground utility systems, preferably water and/or wastewater with a public agency is desired.

#### Civil Engineer:

- P.E. Civil Engineer license required.
- Minimum six (6) years of professional experience in designing underground utility systems, specifically in water and/or wastewater systems with a public agency.

#### Senior Civil Engineer:

- P.E. Civil Engineer license required.
- Minimum twelve (12) years of professional experience with at least five (5) years in designing underground utility systems, specifically in water and/or wastewater systems with a public agency.
- Construction management experience desired, but not required.

### **Physical Requirements**

While performing the duties of this job, the employee is regularly required to sit at desk and in meetings for long periods of time, on a continuous basis; intermittently twist to reach equipment surrounding desk; perform simple grasping and fine manipulation; reach with hands and arms; use a telephone or other electronic communication devices; communicate orally and through written means; use standard office equipment such as computers, copiers, and FAX machines; write or use a keyboard to perform assigned design and drafting duties; bend, squat, climb, kneel and twist while checking equipment or performing field work; stand and/or walk over both even and uneven ground; occasionally climb stairs, stoop, kneel, crouch, or walk and/or stand on slippery surfaces; occasionally lift and/or move up to 25 pounds; hearing and vision within normal ranges with or without correction.

### **Work Environment**

Work is generally carried out in a typical office setting with frequent field visits requiring the operation of a motor vehicle; sometimes traversing uneven terrain; and being exposed to inclement weather. While performing the duties of this job, the working conditions are largely those of a typical office environment, with temperatures occasionally too warm or too cold, moderate noise levels and under lighting conditions typical of an office. However, visits to the field may be required where the employee may be exposed to weather extremes of heat and cold (including snow), mud, allergens, dust, high level of noise, fumes or airborne particles, and toxic or caustic chemicals.

### **Additional Requirements**

- 18 years of age.
- Valid California Driver's License issued by the California Department of Motor Vehicles.
- Eligible to work in the United States.