



December, 2017

**FINAL DRAFT
JUNIOR/ASSISTANT ENGINEER
Salary Grade 202/221**

DEFINITION

Under immediate (Junior Engineer) to general (Assistant Engineer) supervision, performs a variety of civil engineering work, which may include assisting in the design, preparation and technical review and processing of engineering plans, parcel maps and applications for service extension; ensures conformity with District regulations and standards; performs engineering calculations, flow and routing studies and collects and analyzes data for sewer planning; assists engineering staff with special projects; performs related work as assigned.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate (Junior Engineer) to general (Assistant Engineer) supervision from the Senior Civil Engineer. No direct supervision of staff is exercised.

CLASS CHARACTERISTICS

Junior Engineer – This is the entry-level non-registered classification in the professional engineering series. Incumbents perform the less difficult and complex tasks in the field of civil engineering. This class is alternately staffed with the Assistant Engineer and incumbents may advance to the higher-level class after gaining the knowledge, skills and experience that meet the qualifications for and demonstrate the ability to perform the work of the higher-level class.

Assistant Engineer – This is the first-working level non-registered classification within the engineering class series. Responsibilities include full range of professional duties, which do not require project management and professional registration and are performed with under general supervision. Incumbents are expected to work independently and exercise judgment and initiative. Incumbents receive only occasional instruction or assistance as new or unusual situations arise and are knowledgeable of the operating procedures and policies within the department. This class is distinguished from Associate Civil Engineer in that the latter requires professional registration and performs project management and design duties not expected of this class level.

Positions at the Assistant Engineer level are normally filled by advancement from the Junior Engineer level; progression to the Assistant Engineer level is dependent on (i) satisfactory work performance; (ii) the incumbent meeting the minimum qualifications for the classification; (iii) management affirmation that the position is performing the full range of duties assigned to the classification, and (iv) management approval for progression to the Assistant Engineer level.

EXAMPLES OF DUTIES (Illustrative Only)

Positions at the Junior Engineer level may perform some of these duties in a learning capacity.

- Reviews routine reports, plans and specifications for projects, ensuring compliance with District standards and requirements; coordinates facility planning with master plans, general

plan amendments and rezoning applications; participates in pre-design, construction and utility coordination meetings and issues construction permits.

- Assists engineering staff with studies relating to the planning, design, construction and operation of facilities used for wastewater treatment, collection, reclamation and sludge disposal; prepares design calculations for collection system, treatment plant, pump stations and other District facilities.
- Participates in the review and development of District standards; prepare and maintain a variety of maps, calculations, plans and records; make a variety of engineering calculations; provide engineering support to construction inspectors; respond to inquiries and provide information to contractors, developers, other agencies and the public.
- Issues permits for sewer construction; assists in coordinating sewer construction work between engineering staff, collection system and contractors; uses District ordinances and fee schedules to calculate plan check, inspection, connection and other related fees for developers' projects; and tracks plan check and permit processes using a computerized tracking system.
- Manages the annual sewer service charges' calculations and billing.
- Maintains survey records; reviews survey data and procedures for proper line, grade and locations establishment; secures samples for conducting tests of construction materials; maintains records of process and progress of construction work; and prepares and submits inspection reports.
- Researches, collects and analyzes a variety of office and field data; prepares reports and presentations.
- Represents the District with groups, organizations, committees, professional groups and the public; participates on special projects as assigned.
- Prepares a variety of written correspondence, reports, grant applications, master plans, procedures, ordinances and other written materials.
- Maintains accurate records and files.
- Performs related duties as assigned.

QUALIFICATIONS

Positions at the Junior Engineer level may exercise some of these knowledge and abilities statements in a learning capacity.

Knowledge of:

- Basic principles, practices and methods of civil engineering relating to planning, design, construction, operations and maintenance of wastewater and recycled water systems.
- Basic construction methods and materials including survey and inspection.
- Basic engineering calculations and mathematics including calculus and statistical analysis.
- Construction methods and materials, including surveying and environmental assessment.
- Sources of civil engineering and construction information.
- Basic concepts and terminology related to developing specifications and administering contracts.
- Technical report writing practices and procedures.
- Record keeping principles and practices.
- Federal, state, and local regulations and guidelines related to assigned duties.
- Modern office practices, methods, and computer equipment and specialized applications related to the work.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Interpret and apply engineering principles and techniques.
- Learn, interpret and applying District specifications, ordinances and policies.
- Work with the public in providing information, answering questions and providing customer service.
- Perform basic design and planning using a variety of techniques.
- Read, interpret and prepare drawings, maps, profiles and graphs.
- Keep accurate records and preparing clear and concise reports.
- Perform standard engineering design under professional engineering supervision.
- Make and record accurate field engineering observations.
- Assist in developing and administering contracts for professional services and construction.
- Create, prepare, and effectively present technical and administrative reports, both orally and
- Organize work, establish priorities, and meet critical deadlines.
- Operate modern office equipment, including computer equipment and specialized software application programs.
- Use English effectively to communicate in person, over the telephone, and in writing
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Education and Experience:

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

Junior Engineer/Assistant Engineer: Equivalent to graduation from a four-year college or university with major coursework in civil engineering or a related engineering field.

Junior Engineer: No prior experience is required.

Assistant Engineer: One (1) year professional experience in a field or office engineering program.

License and Certifications:

Must possess a valid California class C driver's license and maintain a satisfactory driving record.

Assistant Engineer: Must possess a California Engineer-in-Training (EIT) certificate.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer; mobility to visit and inspect various construction sites; stand for long periods of time and walk on uneven surfaces; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment. Positions in this classification bend, stoop, kneel, reach, and climb to perform work and inspect work sites. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 50 pounds, or heavier weights with the use of proper equipment and assistance from other staff.

ENVIRONMENTAL CONDITIONS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. When working in a field environment, employees are exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, confining workspaces, chemicals, mechanical and/or electrical hazards, and hazardous physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.