



April 2019  
FLSA: Assistant: Non-Exempt  
Associate: Exempt

## ASSISTANT/ASSOCIATE ENGINEER

### DEFINITION

Under general supervision or direction, performs professional engineering field and office work related to the planning, design, construction, and maintenance of the City's capital improvement projects, land development, traffic engineering, public works infrastructure, and daily departmental operations; prepares and reviews designs, specifications, and related engineering and construction documents; provides assistance related to consultant requests for proposals for professional and/or construction services; confers with developers, contractors, other engineers, and the general public; performs a variety of studies and prepares and presents staff reports; and performs related duties, as assigned.

### SUPERVISION RECEIVED AND EXERCISED

Exercises no direct supervision over staff.

Assistant Engineer: Receives general supervision from the Senior Civil Engineer.

Associate Engineer: Receives general direction from the Senior Civil Engineer.

### DISTINGUISHING CHARACTERISTICS

**Assistant Engineer:** This is the entry-level classification in the professional engineering series. Initially under close supervision, incumbents with basic experience learn City systems, operations, practices, and procedures. As experience is gained, assignments become more varied and are performed with greater independence. Assignments may vary with the skill and training of the incumbent. Positions at this level usually perform most of the duties required of the positions at the II-level, but are not expected to function at the same skill level and usually exercise less independent discretion and judgment in matters related to work procedures and methods.

**Associate Engineer:** This is the journey-level classification in the professional engineering series. Positions at this level are distinguished from the I-level by the performance of the full range of duties as assigned, working independently, and exercising judgment and initiative. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise and are fully aware of the operating procedures and policies of the work unit. Work is normally reviewed upon completion and for overall results.

Positions in the professional engineering class series are flexibly staffed and positions at the Associate level are normally filled by advancement from the Assistant level after gaining the knowledge, skill, and experience which meet the qualifications for and after demonstrating the ability to perform the work of the higher-level class.

### EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

*Management reserves the right to add, modify, change, or rescind the work assignments of different positions and to make reasonable accommodations so that qualified employees can perform the essential functions of the job.*

*Some duties may be performed by positions at the entry (Assistant) level in a learning capacity:*

- Conducts engineering studies for assigned projects; reviews and coordinates the development of assigned projects; prepares and/or reviews the adequacy and accuracy of engineering calculations and estimates, preliminary layouts and specifications, and design work from field and survey data.
- Provides technical support in all phases of engineering projects including planning, design, construction, and close-out; performs basic project management activities, including preparing preliminary designs and specifications, developing requests for proposals, cost estimates, work plans, budgets, schedules, and baseline requirements and contract negotiations and management; reviews the work of consultants and contractors; ensures compliance with specifications; recommends modifications; reviews and approves payment requests.
- Serves as plan check engineer or project manager on projects, including determining project scope, historical document research and review, surveying and engineering analysis of alternatives, and preparing plans, specifications, and cost estimates; performs research, map, and field studies and surveys; drafts site plans with specialized computer software; applies engineering principles and practices to specific problems; coordinates construction schedules with other projects and agencies.
- Reviews construction plans prepared by consulting engineers and private contractors to verify compliance with City, public utility, and improvement requirements; checks plans for conformance with regulations regarding line, grade, size, elevation, and location of structures; reviews engineering calculations of other engineers or engineering technicians; participates in pre-design, construction, and utility coordination meetings and issues construction permits.
- Conducts field and construction site inspections; ensures contractor compliance with contract/plan documents and time and budget estimates; recommends field changes; coordinates warranty and training for a smooth transition to operation and maintenance programs.
- Prepares designs, specifications, plans, schedules, estimates, and reports for assigned capital improvement projects and the development and modification of City infrastructure.
- Conducts civil and traffic engineering and related studies, evaluates alternatives, makes recommendations, and presents reports to superiors and others; conducts studies and confers with the public regarding transportation and traffic issues.
- Prepares a variety of written materials, including staff and engineering reports and grant applications for engineering and transportation projects.
- Prepares requests for proposals and administers consultant selection process for the design of assigned capital projects; administers construction contracts during the construction phase; maintains regular contact with consulting engineers, construction project engineers, and regulatory agencies regarding project progress.
- Coordinates projects with activities of businesses, utilities, special districts, and other City departments.
- Responds to complaints and assists in solving problems related to construction or City plans; interprets plans and policies; confers with and provides information to property owners, contractors, engineers, consultants, and the general public on conformance to standards, plans, specifications, and codes.
- Issues and administers grading and encroachment permits.
- Assists in writing and administering state and federal grants.
- Assists in administering a variety of division programs.
- Maintains accurate records and files, including municipal system maps, databases, and comprehensive plans; maintains and updates City Public Works standards.
- Assists in the training of other city personnel in public works design and construction techniques.
- Attends and participates in a variety of meeting as assigned.
- Performs other related duties as assigned.

## **JOB-RELATED QUALIFICATIONS**

*Some knowledge and abilities may be demonstrated by positions at the entry (Assistant) level in a learning capacity:*

**Knowledge of:**

- Methods, materials, and techniques used in the construction of public works projects, including water, stormwater, street, and building design.
- Civil engineering principles, practices, procedures, and standards related to City public works, engineering infrastructure development and maintenance, and surveying.
- Basic principles and practices of capital improvement program budgeting, cost estimation, funding, project management, and contract administration.
- General design, layout, and construction practices for public improvements such as streets, storm drains, grading, and landscaping.
- Engineering plan types, review practices, and permit filing and approval procedures.
- Applicable Federal, State, and local laws, regulatory codes, ordinances, and procedures relevant to assigned area of responsibility.
- Modern developments, current literature, and sources of information regarding engineering.
- Principles of advanced mathematics and their application to engineering work.
- Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective staff reports.
- Methods and techniques of effective technical report preparation and presentation.
- Record keeping principles and procedures.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination.
- Computers and software programs (e.g., Microsoft software packages) to conduct, compile, and/or generate documentation.

**Ability to:**

- Conduct complex civil engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare effective technical staff reports.
- Prepare, understand, and interpret engineering construction plans, specifications, and other contract documents.
- Conduct comprehensive engineering studies and prepare reports with recommendations.
- Assist in, develop, and administer contracts for professional services and construction in a public agency setting.
- Perform mathematical and engineering computations with precision.
- Make engineering design computations and check, design, and prepare engineering plans and studies.
- Prepare and present clear, concise, and logical written and oral technical reports, correspondence, policies, procedures, legal descriptions, and other written materials.
- Establish and maintain a variety of filing, record keeping, and tracking systems.
- Prepare quantity and cost estimates.
- Respond to complex and sensitive public inquiries regarding City engineering activities.
- Adapt approved engineering methods and standards to the design and construction of public works projects.
- Understand, interpret, explain, and apply all pertinent laws, codes, regulations, policies and procedures, and standards relevant to work performed.
- Effectively represent the department and the City in meetings with governmental agencies; community groups; various business, professional, and regulatory organizations; and in meetings with individuals.
- Learn and understand the organization and operation of the City and of outside agencies as necessary to assume assigned responsibilities.
- Effectively use computer systems, software applications, and modern business equipment to perform a variety of work tasks.

- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Use tact, initiative, prudence, and independent judgment within general policy, procedural, and legal guidelines.
- 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 that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:*

Equivalent to a bachelor's degree in civil engineering or a closely related field.

Assistant Engineer: One (1) year of professional engineering design, plan review, and project administration experience, preferably in a public agency setting.

Associate Engineer: Three (3) years of professional engineering design, plan review, and project administration experience, preferably in a public agency setting, or three (3) years of experience equivalent to Assistant Engineer at the City of East Palo Alto.

**Licenses and Certifications:**

- Possession of, or ability to obtain, a valid California Driver's License by the time of appointment and satisfactory driving record.

Assistant Engineer: Possess and maintain Engineer-In-Training certification.

Associate Engineer: Possession and maintenance of a Registered Professional Civil Engineer license in the State of California is desired.

**PHYSICAL DEMANDS**

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect City sites, including traversing uneven terrain, climbing ladders, stairs, and other access points, to operate a motor vehicle, and to visit various City and meeting sites; vision to read printed materials and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is primarily a sedentary office classification although standing and walking between work areas and to conduct inspections may be required. 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 occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information. Employees must possess the ability to lift, carry, push, and pull materials and objects weighing up to 20 pounds or more with appropriate equipment or staff assistance.

**ENVIRONMENTAL CONDITIONS**

Employees predominately work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees may work in the field and occasionally be exposed to loud noise levels, cold and hot temperatures, inclement weather conditions, road hazards, vibration, mechanical and/or electrical hazards, and hazardous chemical substances and fumes. Employees may interact with members of the public or with staff under emotionally stressful conditions while interpreting and enforcing departmental policies and procedures.