

ASSISTANT ENGINEER

Approved: July 2016

FLSA: Non-exempt

Unit: SEIU



Definition
Under general supervision, performs various professional field and office engineering work related to the management, planning, design, construction, and maintenance of the City's Capital Improvement Program (CIP), utilities, land development, public works and/or transportation infrastructure, and daily departmental operations; may provide project management and administration; confers with developers, contractors, and representatives of other agencies regarding facility and infrastructure development; administers professional services and construction contracts; administers Federal and State grant funds associated with construction projects; provides professional staff assistance to supervisors and managers, other departments, and the public in areas of expertise; performs a variety of studies and may prepare and present staff reports; and performs related work as required.
Supervision received and exercised
Receives general supervision from assigned supervisory or management staff. Exercises no direct supervision over staff. May provide technical and functional direction to contractors or temporary staff.
Class characteristics
This is the second working-level class in the professional engineering series. Incumbents are expected to perform the full range of professional and technical engineering work in all of the following areas: the City's CIP, utilities, land development, public works and/or transportation infrastructure, and daily departmental operations, in addition to assisting with or administering small to medium projects. Positions at this level receive only occasional instruction or assistance as new or unusual situations arise, are fully aware of the operating procedures and policies of the work unit, and make routine decisions related to design and inspection. This class is distinguished from the Associate Engineer in that the latter manages larger and more complex and high profile projects.
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. <ul style="list-style-type: none">• Plans, designs, and/or inspects small and/or routine public works construction and/or transportation projects, including defining the scope of the project; securing adequate funding from Federal and State grant programs and other funding sources; coordinating with permitting and public utility agencies; performing historical document research and review; surveying and engineering analysis of alternatives; preparing plans, specifications, and cost estimates; performing research, map, and field studies and surveys; drafting site plans with specialized computer software; applying engineering principles and practices to specific problems; coordinating construction schedules with other projects and agencies; preparing and reviewing cost estimates; and inspecting construction of projects to ensure compliance with construction documents; and performs related planning and design work.• Performs and participates in various transportation and traffic engineering studies and duties related to traffic control systems; participates in the operation and maintenance of the City's traffic signal systems.• Reviews construction and transportation plans prepared by consulting engineers and private contractors to verify compliance with City sidewalk, transportation, 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.• Reviews traffic signal plans, timing plans, and sign and striping plans.• Provides construction administration, plans, technical input, and inspection of public works construction projects, including coordinating work with other divisions and City departments, reviewing and inspecting work to ensure conformance with plans and specifications, tracking and maintaining all project accounting, coordinating schedules, and providing public notices of projects.• Responds to citizen inquiries and complaints; provides information to the public at the front counter in person, via telephone, or other means of communication regarding grading, encroachment permits, right-of-way and property line information, utility information, transportation and traffic information, slope stability and groundwater issues, improvement plan check, and payment processes.• Prepares various reports and presentations, including staff reports, technical reports, and requests for proposals; attends and/or presents to City Commissions as needed for projects; may serve as staff liaison to Commission bodies.• Reviews tract and parcel maps, lot line adjustments, and other subdivision documents.

- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments in assigned work areas.
- Performs other duties as assigned.

Qualifications

Knowledge of

- Civil and/or transportation engineering principles, techniques, policies, and procedures as applied to the planning, design, and construction of buildings, streets, parks, drainage systems, utilities, traffic signals, and other public works infrastructure.
- Methods, materials, and techniques used in the construction, design, extension, and maintenance of public works and transportation projects.
- Principles, practices, procedures, and standards related to City public works, transportation, 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, utilities, grading, building expansions, traffic signals and landscaping.
- Subdivision engineering, plan review, mapping, and construction practices.
- Bidding requirements for public works and/or transportation projects.
- 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 office practices and technology, including software programs relevant to the work performed.
- 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.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for effectively representing the City in contacts with governmental agencies, community groups, various business, professional, and regulatory organizations, and with property owners, developers, contractors, and the public.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and City staff.

Ability to

- Conduct basic civil engineering and/or transportation 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.
- Assist in and develop and administer contracts for professional services and construction in a public agency setting.
- Interpret, apply, explain, and ensure compliance with Federal, State, and local policies, procedures, laws, and regulations, technical written material, and City engineering policies and procedures.
- Design engineering public works and/or transportation projects.
- Read and understand technical drawings and specifications.
- Perform mathematical and engineering computations with precision.
- Recognize discrepancies from as-built to contract specifications and recommend reconciliation.
- Perform traffic signal and street light diagnostics.
- Make engineering design computations and check, design, and prepare engineering plans and studies.
- Direct the work of contract consultants.
- Prepare and present clear, concise, and logical written and oral reports, correspondence, policies, procedures, legal descriptions, and other written materials.
- Establish and maintain a variety of filing, record-keeping, and tracking systems.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize and prioritize a variety of projects and multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines.

- Effectively represent the department and the City in meetings with governmental agencies, community groups, and various business, professional, and regulatory organizations and individuals.
- Operate modern office equipment including computer equipment and software programs relevant to the work performed.
- Use English effectively to communicate in person, over the telephone, and in writing.
- 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 graduation from an accredited four-year college or university with major coursework in civil engineering, transportation engineering, urban planning, or a related engineering field.
- Two (2) years of professional engineering design, plan review, and project administration experience, preferably in a public agency setting.

Licenses and certifications

- Possession of, or ability to obtain, a valid California driver's license by time of appointment.

Physical demands

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect City development and traffic sites, including traversing uneven terrain, climbing ladders, stairs, and other temporary or construction 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 25 pounds.

Environmental elements

Employees 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 physical substances and fumes. Employees may interact with upset staff and/or public and private representatives in interpreting and enforcing departmental policies and procedures.