

## JOB DESCRIPTION



## ENGINEERING ANALYST

### DEFINITION

Under general supervision of the Deputy Director of Public Works, to perform professional office and field engineering work; to assist other staff in the performance of office and field engineering work; perform various complex administrative work; and to do related work as required.

**EXAMPLES OF DUTIES:** (These examples are intended only as illustrations of the various types of work performed in positions allocated to this class. The examples of work performed are neither restricted to nor all-encompassing of the duties to be performed under this job title.) (E) Essential Duty; (M) Major Portion of Time

- As assigned, undertake and carry forward a variety of projects requiring independent judgment and initiative.
- Assist in the preparation of bid documents, contract documents and correspondence. (E)
- Perform professional technical and detailed field and office work in one or more of the following areas: surveying, computer aided drafting, traffic engineering, construction inspection, materials testing; geographic information systems or other functional areas. (E,M)
- Make check notes on measurements, maps, drawings and arithmetic computations. (E)
- Index and file maps, plans and other documents; establish and maintain filing and tracking systems. (E)
- Perform computer aided drafting of public works projects. (E,M)
- Inspect materials and workmanship on public works projects to insure conformance with established plans and specifications. (E)
- Prepare contract payments and reports. (E)
- Review plans and subdivision plans for compliance with code requirements. (E)
- Answer questions and provide information to the public concerning engineering activities. (E,M)
- Assist other engineering personnel in carrying out job assignments. (E,M)
- Process and issue encroachment permits. (E)
- Utilize Geographic Information System (GIS) and AutoCAD to research maps for reports, plans and other projects. (E,M)
- Prepare maps and exhibits utilizing Arc GIS and ESRI software. (E,M)
- Receive and respond to information requests for base maps, parcel maps and improvement plan information, encroachment permits, benchmarks and other geographical data. (E)
- Retrieve plans, reports, permits and files as necessary to comply with requests. (E)
- Responds to complaints from the public and resolves conflicts between owners, contractors, developers, utility companies and others. (E)
- Perform a wide variety of routine to complex administrative duties in support of the Engineering Division. (E,M)
- Create and modify forms as necessary. (E)
- Prepare and proof-read a wide variety of correspondence, legal descriptions, letters, memoranda, reports and other written materials. (E)
- Organize and assemble documents. (E)
- Verify accuracy of information. (E)
- Research discrepancies and record information. (E)
- Maintain and update engineering records, project files, tracking lists, permit records and other files, including grading, encroachments, improvement plans, storm drains, landscaping and final maps. (E,M)
- Perform related duties as assigned.

## **QUALIFICATIONS**

### **Knowledge of:**

- Civil engineering principles, practices and methods applicable to office and field work involving the design, construction, and maintenance of public works projects.
- Design and construction practices and methods of public works infrastructure.
- Engineering plan types, review practices and permit filing and approval procedures.
- Applicable Federal, State and local laws, codes and regulations, including administrative and department policies and procedures.
- Technical engineering mathematics.
- Technical report writing practices and procedures.
- Principles and procedures of record keeping.
- Modern office practices, methods and computer equipment and applications related to the work.
- English usage, spelling, vocabulary, grammar and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors and City staff.

### **Ability to:**

- Understand and explain City policies, procedures, fees, and basic engineering regulations to the general public, developers, contractors and City staff.
- Deal tactfully with the public and others in providing information, answering questions and providing customer service.
- Perform responsible technical engineering support work with accuracy, speed, and minimal supervision.
- Read and interpret engineering plans, technical drawings, specifications, and maps.
- Make accurate mathematical and basic engineering calculations.
- Prepare clear and concise reports, correspondence, policies, procedures and other written materials.
- Respond to and effectively prioritize multiple phone calls, citizen requests and other interruptions.
- Operate office equipment and computer applications related to the work.
- Make sound, independent decisions within established policy and procedural guidelines.
- Organize own work, set priorities and meeting critical time deadlines.
- 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.

### **Experience:**

One year of recognized professional experience in civil engineering work.

### **Education:**

High School diploma or equivalent, supplemented by courses in computer aided drafting, Geographical Information Systems (GIS), algebra, geometry and trigonometry. Prefer equivalent to completion of Bachelors of Science in Engineering, Science, or related field.

### **Necessary Special Requirements:**

- Possession of a valid Class C California Driver License is required.