



# CITY OF LAKEPORT

## ENGINEERING TECHNICIAN I AND II

### Job Description

#### **DEFINITION**

Under general supervision, to learn and perform basic technical engineering office and field support work; and to do related work as required.

#### **CLASS CHARACTERISTICS**

Engineering Technician I is the entry level class in this series. Incumbents learn and perform basic technical engineering office and field support work. This class is distinguished from the Engineering Technician II by the fact that incumbents perform many assignments in a training and learning capacity as they develop the skills and knowledge to perform technical engineering support work.

Engineering Technician II is the working level classification in this series. Incumbents perform a wide variety of technical engineering office and field support work. This class is distinguished from the Engineering Technician I by the fact that incumbents perform a broader range of more complex assignments, requiring previous experience as an engineering Technician. An Engineering Technician II performs a wide range of assignments on a more independent basis.

#### **ESSENTIAL FUNCTIONS**

*The following duties are typical for this classification. Incumbents 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 business needs and changing business practices.*

Issues permits and inspects construction performed in public rights of way; reviews various maps and records for accuracy and conformance to regulations; checks scale, survey data, boundary information, survey monuments, and other information; reviews standard drawings and makes recommendations concerning the revisions

May use CAD to develop engineering drawings; assists with the development of estimates, plans and specifications for a variety of City projects, including roads, buildings, structures, drainage facilities, water and sewer systems. Performs basic contract administration and record keeping associated with City projects.

Inspects materials and workmanship on public works projects and assesses conformance with plans and specifications, including inspections of utilities construction and encroachment.

Provides assistance to other departments, City personnel, and the public; responds to inquiries and provides information regarding public works projects, department policies and procedures, or other information.

Maintains records of City traffic control devices; issues work orders for the installation, removal and/or maintenance of traffic control devices; researches and prepares reports on traffic related problems; takes traffic counts.

Drafts or prepares corrections on a variety of maps, plans, tracings, and related records; plots field notes; prepares legal descriptions of property; prepares specifications and costs estimates; calculates fees.

Conducts field surveys, including surveys of property and public works construction; operates a variety of survey equipment; measures distances and establishes relative elevations; prepares related field notes; writes legal descriptions.

Samples and tests materials for conformance to standards or specifications; prepares records, and reports test results.

## **QUALIFICATIONS GUIDELINES**

### **Education and/or Experience**

Any combination of education and/or experience that has provided the knowledge, skills, and abilities necessary for acceptable job performance. Example combinations include completion of courses in drafting, algebra, geometry, and trigonometry; or successful completion of CAD and engineering design courses. Previous work experience in basic engineering support work is desirable.

### **Knowledge, Skills, and Abilities**

**Engineering Technician I** Knowledge of nomenclature symbols, methods, practices, techniques, and instruments used in engineering and mapping. Knowledge of engineering mathematics including geometry, algebra, and trigonometry. Knowledge of data collection and analysis processes and procedures. Knowledge of standard office practices and procedures

**Engineering Technician II** Basic knowledge of the fundamentals of civil engineering. Basic knowledge of field surveying and surveying equipment. Knowledge of topographical and construction survey practices. Knowledge of nomenclature symbols, methods, practices, techniques, and instruments used in engineering and mapping. Knowledge of engineering mathematics including geometry, algebra, and trigonometry. Knowledge of testing procedures and equipment for construction materials. Knowledge of CAD systems and GIS systems. Knowledge of data collection and analysis processes and procedures. Knowledge of standard office practices and procedures.

Ability to learn and perform a variety of technical engineering office and field support work. Learn to reduce, interpret, and apply field notes in the performance of technical engineering and drafting work. Learn to read and understand engineering plans and specifications. Learn to read and understand basic planning documents and concepts such as zoning and land use designations. Use drafting materials and equipment. Develop accurate records, sketches and notes. Prepare a variety of records and reports. Learn to read and interpret maps, drawings, and property documents. Make accurate mathematical calculations. Learn to use a computer and computer applications including CAD systems, GIS systems in the performance of technical engineering work. Effectively represent the City in contacts with the public, contractors, developers, consultants, and other governmental agencies. Communicate clearly and concisely both orally and in writing. Understand and follow verbal and written directions Regularly work well under pressure, meeting multiple and sometimes conflicting deadlines. Constantly demonstrate cooperative behavior with colleagues, supervisors, and customers or clients.

### **Special Requirements**

Possession of or ability to obtain a Class C California driver's license and a satisfactory driving record.

Receive satisfactory results from a background investigation, physical examination, drug testing and administrative screening which meet the established qualification standards.

## **PHYSICAL PROFILE:**

Sit for extended periods; frequently stand and walk; corrected hearing and vision to normal range; verbal communication; finger dexterity to work with small hand tools and surveying equipment; walk on uneven

terrain and culverts; coordination and stamina to ascend slopes; ability to bend, stretch and reach; lift and carry objects from 10 pounds to 60 pounds; ability to pull brush and debris for continuous periods; use of office equipment including computers, telephones, calculators, copiers, and facsimile machines.

CLASS RANGE NO.	Level I = GU172
CLASS RANGE NO.	Level II = GU197
FLSA	Non-Exempt
ADOPTION DATE	3/29/12
REVISION DATE	
APPROVED BY:	