



Class Code: 05-0733
FLSA: Non Exempt
EEO: 03
Bargaining Unit: 05
Revised: 10/2020

ENGINEERING TECHNICIAN, SENIOR

DEFINITION

Under general supervision, performs a wide variety of the most complex technical engineering office and field support work; assists with the planning and design of public works facilities; performs inspections on Public Works construction contracts; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

This is the advanced journey level class in the Engineering Technician series. Incumbents perform a wide variety of the most complex technical engineering office and field support work including inspections on Public Works construction contracts.

This class is distinguished from Engineering Technician II in that incumbents at the Senior Engineering Technician level perform the most complex assignments, requiring previous experience as an Engineering Technician. Incumbents in this class must be capable of performing the full scope of Computer Aided Drafting (CAD) work required in the Department of Public Works.

SUPERVISION RECEIVED AND EXERCISED

Receives immediate or general supervision from the assigned supervisor. Exercises no direct supervision over staff. May provide technical and functional direction to assigned staff.

EXAMPLES OF ESSENTIAL DUTIES

Class specifications are intended to present a descriptive list of the scope of duties performed by employees in this class and are not intended to reflect all duties performed within the job.

- Performs a variety of engineering field work, including construction, right-of-way, topographic, and land surveys.
- Develops and maintains accurate field notes showing lines, angles, distances, benchmarks, mathematical calculations, and other pertinent field survey data.
- Tabulates and plots field data.
- Develops and checks notes, drawings, tracings, and engineering computations.
- Checks and prepares property descriptions.
- Researches recorded documents.
- Performs and calculates boundary and control surveys.
- Analyzes construction plans and performs construction staking.
- Uses Computer Aided Drafting (CAD) software to develop engineering drawings.
- Assists with the development of estimates, plans, and specifications for a variety of Department of Public Works projects.
- Inspects workmanship on a variety of public works projects to ensure conformance with established plans and specifications and contract requirements.
- Performs contract administration and record keeping.
- Inspects, samples, and tests soils, aggregates, concrete, and asphalt; may perform traffic engineering assignments.
- Reviews subdivision and drainage improvement plans.
- Assists with preparing requests for consultant services.

- Processes encroachment permits in accordance with applicable policies.
- Answers questions from the public regarding the Department of Public Works functions and activities.
- May operate a variety of surveying equipment and instruments including transits, total stations, data collectors, levels, site rods, tapes, and chains.
- May perform right-of-way surveys.
- May maintain files indices and files of survey records.
- May develop and maintain files on traffic accidents.
- Performs related duties as assigned.

MINIMUM QUALIFICATIONS

Knowledge of:

- The fundamentals of civil engineering.
- Field surveying and surveying equipment.
- Laws and regulations applicable to the Department of Public Works functions, including the Subdivision Map Act.
- Contract administration.
- Topographical and construction survey practices.
- Nomenclature, symbols, methods, practices, techniques, and instruments used in engineering and mapping.
- Engineering mathematics, including geometry and trigonometry.
- Testing procedures and equipment for construction materials.
- Data collection and analysis.
- Computer Aided Drafting (CAD) systems.
- Standard office practices and procedures.
- Caltrans Highway Design Manual and Standard Plans and Standard Specifications.
- Proper English spelling, grammar, and punctuation.
- Applicable business equipment and software applications.

Ability to:

- Perform a variety of paraprofessional, technical engineering office and field support work.
- Reduce, interpret, and apply field notes in the performance of technical engineering and drafting work.
- Comprehend engineering plans and specifications.
- Use drafting materials and equipment.
- Analyze and ensure the accuracy of property descriptions.
- Assist with preparing plans, specifications, and estimates for Department of Public Works projects.
- Develop accurate records, sketches, and notes.
- Prepare a variety of records and reports.
- Read and interpret maps, drawing, and property documents.
- Make accurate mathematical calculations.
- Effectively represent the Department of Public Works in contacts with the public, contractors, developers, and other governmental agencies.
- Communicate effectively, both orally and in writing.
- Regularly work well under pressure, meeting critical deadlines.
- Utilize a computer, relevant software applications, and/or other equipment as assigned.
- Constantly demonstrate cooperative behavior with colleagues, supervisors, customers, clients, and the public.

Licensing and Certifications:

Possession of, or ability to obtain, a valid California driver's license.

Education and Experience:

Three (3) years of experience performing engineering support work comparable to that of an Engineering Technician II with the County of Lake.

Successful completion of Computer Aided Drafting (CAD) and engineering road design courses, including some direct experience with the Caltrans Highway Design Manual, Standard Specifications, and Standard Plans is highly desirable.

Additional directly related experience and/or education may be substituted.

WORKING CONDITIONS, ADA, AND OTHER REQUIREMENTS

The County of Lake is an equal opportunity employer. The County of Lake will comply with its obligations under the law to provide equal employment opportunities to qualified individuals with disabilities.

Positions in this class typically require: sitting, stooping, kneeling, crouching, reaching, standing, walking, pushing, pulling, lifting, fingering, grasping, talking, hearing, seeing, and repetitive motions.

Sedentary Work: Exerting up to 10 pounds of force occasionally and/or a negligible amount of force frequently or constantly to lift, carry, push, pull or otherwise move objects. Sedentary work involves sitting most of the time. Jobs are sedentary if walking and standing are required only occasionally and all other sedentary criteria are met.

Light Work: Exerting up to 25 pounds of force occasionally, and/or up to 10 pounds of force frequently, and/or a negligible amount of force constantly to move objects. If the use of arm and/or leg controls requires exertion of forces greater than that for Sedentary Work and the worker sits most of the time, the job is rated for light work.

Medium Work: Exerting up to 50 pounds of force occasionally, and/or up to 25 pounds of force frequently, and/or up to 10 pounds of force constantly to move objects.

Incumbents generally work in a typical office environment with adequate light and temperature. There may be occasional exposure to extreme temperatures, loud noise, fumes, noxious odors, dust, mist, gases, and poor ventilation; underground, confined, or restricted workspaces; and heights more than five stories above ground level.

Incumbents generally work outside of a typical office environment and may be exposed to extreme temperatures, loud noise, fumes, noxious odors, dust, mist, gases, and poor ventilation; underground, confined, or restricted workspaces.

Positions in this class may require local and statewide travel, as necessary.

Disaster Service Workers: As members of the County of Lake Emergency Services Organization, all Lake County employees are designated as Disaster Service Workers during a proclaimed emergency and may be required to perform certain emergency services at the direction of the department/county.

The contents of this class specification shall not be construed to constitute any expressed or implied warranty or guarantee, nor shall it constitute a contract of employment. The County of Lake assumes no responsibility beyond the general accuracy of the document, nor does it assume responsibility for any errors or omissions in the information contained herein. The contents of this specification may be modified or revoked without notice. Terms and conditions of employment are determined through a "meet and confer" process and are subject to the Memorandum of Understanding currently in effect.