



JULY 2012
FLSA: NON-EXEMPT

ENGINEERING ASSISTANT I/II

This class specification indicates, in general terms, the type and level of work performed as well as the responsibilities of employees in this classification. The job functions described are not to be interpreted as being all-inclusive to any specific employee.

DEFINITION

Under direct or general supervision, performs a variety para-professional engineering duties including drafting, construction design, calculations, and project costing; maintains and coordinates the materials and services of the engineering library; provides information and assistance to contractors, developers, engineers, and the general public on the District's engineering services and activities; and performs a variety of technical tasks relative to assigned area of responsibility.

SUPERVISION RECEIVED AND EXERCISED

Receives direct or general supervision from assigned supervisor or manager. Exercises no direct supervision of staff.

CLASS CHARACTERISTICS

Engineering Assistant I – This is the entry-level classification in the Engineering Assistant series. Incumbents perform non-complex assignments under immediate supervision. Work is reviewed regularly for overall accuracy, completeness and application of principles. Advancement to the "II" level is based upon demonstrated proficiency in performing the full range of duties and is at the discretion of high level supervisory or management staff.

Engineering Assistant II – This is the journey level classification in the Engineering Assistant series. Incumbents perform varied and somewhat difficult assignments under general supervision. Work is reviewed at consistent intervals for overall accuracy, completeness and soundness of technical judgment. Incumbents may review work of less experienced Engineering Assistants. Positions in this series are flexibly staffed and may be filled by advancement from the "I" level, or when filled from the outside, require prior experience.

EXAMPLES OF ESSENTIAL JOB FUNCTIONS

The following essential job functions are typical for this classification. Incumbents may not perform all of the listed job functions and/or may be required to perform additional or different job functions from those set forth below to address business needs and changing business practices.

- Coordinate the submittal review process between contractors and District staff; review submittals to determine accuracy in relationship to project specifications and plans; consolidate feedback from District staff for review by project engineer; distribute copies of reviewed submittals and feedback to District staff and returns to contractor as either approved or requiring resubmittal.
- Consolidate changes made on blueprints by consultants, engineers and inspectors with contractor's as-built drawings to draft final record drawings on a wide variety of wastewater treatment facility construction projects using drafting tools, supplies and equipment, and computer software packages; conduct field visits to confirm finished construction configuration; perform routine engineering,

- topographic and mathematical calculations; make appropriate notes of sizes, diameters, locations and other significant information and returns to project engineer.
- Assist in identifying equipment needs by researching submittals and as-built plans; receive and distribute operations and maintenance manuals after construction has been completed; may receive materials from contractor and coordinate testing between appropriate staff.
 - Review change order requests to determine the accuracy of rates, material costs and equipment rental rates; submit final data to engineer for approval.
 - Participate in bidding process on miscellaneous projects by compiling and sending out request for proposals, inspecting work progress, reviewing completed projects with engineers and approve payments.
 - Locate pipe locations in the field and on plans and enter into computer drafting/design software; develop traffic control plans.
 - Prepare maps, graphs, charts, report covers and other visual aides for permanent documentation or meeting display using hand-drawn, typewritten, lettering machines, press-on applications or other resources to draw or sketch assigned projects; update electrical nomenclature on electrical drawings.
 - Assist the public, contractors and staff by researching and answering construction engineering related questions; issue connection permits and receives fees.
 - Work with other water agencies, regulatory agencies and other divisions within the District to gather information for the completion of wastewater management or project studies; obtain permits.
 - Draft engineering drawings of proposed wastewater treatment facility construction projects from engineer's design drawings, including structures and notations; review maps and blueprints to determine utility locations, elevations and other related information.
 - Assist at the front counter providing information and answering questions regarding permits, annexations and utilities.
 - Maintain engineering library and sewer atlas; arrange shop drawings; complete record drawings.
 - Perform routine tasks such as mailing and delivering plans and specifications, copying, answering telephones and maintaining files.
 - Perform related duties as required.

QUALIFICATIONS

Knowledge of:

- Basic design and construction practices and methods of underground facilities and related infrastructure.
- Principles and practices of technical civil engineering drafting and surveying support.
- Office procedures, methods, and equipment including computers and applicable software applications such as word processing, spreadsheets, computer aided drafting, internet software, and databases.
- Principles and procedures of record keeping and reporting.
- Technical engineering mathematics.
- Mechanical and computer drafting techniques.
- Basic principles of landscape architecture and traffic control.
- Methods, techniques, materials, equipment, and tools used in engineering and drafting.
- Applicable Federal, State, and local laws, codes, and regulations, including administrative and department policies and procedures.
- English usage, grammar, spelling, vocabulary, and punctuation.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and District staff.

Ability to:

- Draft design drawings from blueprints or engineers' drawings using drafting equipment, tools, supplies and software packages or by freehand.
- Perform responsible technical engineering support work with accuracy, speed, and minimal supervision.
- Read and prepare maps, plans, graphs, and charts.
- Identify and classify pipes and other pertinent construction materials.
- Use and understand alpha and numeric codes.
- Learn and utilize computerized drafting, design, project management, and records software.
- Recognize electrical color codes.
- Make mathematical calculations and accurate engineering computations and drawings.
- Communicate effectively with public.
- Understand and follow oral and written instructions.
- Organize own work, set priorities, and meet critical time deadlines.
- Operate modern office equipment including computer equipment and specialized software applications programs.
- 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.

Employment Standards:

Any combination of education and experience that provides the required knowledge, skills, and abilities may be qualifying as determined by OCSD.

Engineering Assistant I

1. High school diploma or equivalent; AND
2. One (1) year of experience in drafting or paraprofessional construction engineering work drafting design drawings of construction projects from blueprints or engineers' drawings using drafting equipment, tools, supplies and software packages or by freehand.

Engineering Assistant II

1. High school diploma or equivalent supplemented by two years (60 semester units) of college level coursework in engineering technology or computer drafting from an accredited college, university, or qualified trade school; AND
2. Three (3) years of increasingly responsible technical engineering work experience at a level comparable to an Engineering Assistant I with the District.

License or Certificate:

- Possession of a valid California class C driver's license.

Disaster Service Workers:

All Orange County Sanitation District employees are designated Disaster Service Workers through state law (California Government Code Section 3100-3109). Employment with the Orange County Sanitation District requires the affirmation of a loyalty oath to this effect. Employees are required to complete all related training as assigned, and to return to work as ordered in the event of an emergency.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect District engineering and construction sites, to operate a motor vehicle, and to visit various District 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 partially a sedentary office classification, although the job involves field inspection work requiring frequent walking at inspection sites to monitor performance and to identify problems or hazards; standing in work areas and walking between work areas is 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, or heavier weights with the use of proper equipment.

ENVIRONMENTAL ELEMENTS

Employees work in an office environment with moderate noise levels and controlled temperature conditions; but may occasionally work in the field and 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.