

CIVIL ENGINEERING DRAFTING TECHNICIAN

DEFINITION

Performs calculations and drafting in the preparation of civil engineering drawings.

TYPICAL DUTIES

Prepares engineering drawings, such as plot plans, topographic maps, profiles, tract maps, zone changes, and cross sections, from field survey level and stadia notes or school boundary data, and makes related calculations.

Prepares final construction drawings from engineering sketches in accordance with established standards.

Plots, traces, revises, copies, enlarges, or reduces by scale various maps, diagrams, and plans. Calculates traverses and closures.

Obtains data from official records and assists in writing legal property descriptions.

Prepares reference data relating to civil engineering design.

Visits sites and takes measurements for verification of existing conditions.

May operate surveying instruments as necessary to obtain field data for completion of civil engineering drawings.

Performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS AMONG RELATED CLASSES

A Civil Engineering Drafting Technician performs skilled civil engineering drafting from approved preliminary sketches and field surveyors' notes, under the immediate supervision of higher-level civil engineering personnel, but is not responsible for civil engineering design.

A Civil Engineering Designer drafts the civil engineering phases of school building projects, assists in the design of larger projects, and designs smaller projects.

An Engineering Aide performs routine tracing, drafting, and lettering; makes algebraic, geometric, and trigonometric computations; and assists technical personnel by performing sub-professional duties related to engineering work.

SUPERVISION

Immediate supervision is received from an Assistant Civil Engineer or a Civil Engineering Designer. No supervision is exercised.

CLASS QUALIFICATIONS

Knowledge of:

Terminology, symbols, and sources of civil engineering drafting information
Civil engineering customs and practices in expressing ideas, designs, and data in drawings
Mathematics applicable to the solution of minor civil engineering drafting problems
Principles and methods of plane surveying

Ability to:

Use drawing instruments and do freehand lettering

ENTRANCE QUALIFICATIONS

An Associate in Arts degree or its equivalent with a major or emphasis in civil engineering from a recognized college. Completion of at least one course in a recognized major computer-aided design and drafting (CADD) software system is required,

or

Two years of experience in civil engineering drafting that included the use of a major computer-aided design and drafting (CADD) software system, preferably under the supervision of a licensed civil engineer. One year of experience as a member of a field surveying party may be substituted for six months of the required drafting experience.

Special:

A valid California Driver License.
May require use of an automobile.

This class description is not a complete statement of essential functions, responsibilities, or requirements. Requirements are representative of the minimum level of knowledge, skill, and/or abilities. Management retains the discretion to add or change typical duties of a position at any time.

Revised
11-14-12
HV

Reviewed
02-02-21
CL