



Assistant in Civil Engineering

Summary

Perform a variety of professional civil engineering field and office work which may include plan check, design, specification, and field work relating to construction of streets, water distribution, and wastewater collection facilities, structures, parks, subdivisions, and related public works projects.

Class Characteristics

General supervision is provided by a higher level manager; responsibilities may include the indirect supervision of support staff.

This is the first working level in the degreed civil engineering series. Incumbents perform a variety of routine to moderately difficult engineering work and exercise a degree of independent judgment. This class is distinguished from Associate in Civil Engineering in that the latter performs the more complex engineering work and regularly functions as a project or section leader.

Essential Duties, Skills, and Demands of the Position

The duties, skills, and demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with a disability to perform the essential duties, skills, and demands.

Duties:

Check final subdivision and parcel maps and legal descriptions; check improvement plans and profiles.

Direct the work of a field survey party in various projects; design and prepare drawings and engineering specifications for streets, sanitary sewer, storm sewer, sidewalks, streetlights, and other public works construction projects.

Review plans and specifications submitted by developers and contractors for conformance with City requirements and issue necessary permits.

Make general engineering and plan checking calculations for public work projects.

Prepare quantity and cost estimates for construction projects.

Check field data and survey party notes and assist in transferring data to maps and other required records.

Review and write legal descriptions for properties; review plans submitted by developers, contractors, or the public, and issue required permits.

May act as project engineer on limited designs and construction contracts, including preparing progress reports and recommending progress payments and change orders as necessary.

Make the more complex construction inspections on site to confirm contractual compliance to engineering and construction standards.

Research various files and sources both inside and outside of the department; prepare narrative or technical reports as required.

Assist in the training and direction of less experienced professional and technical support staff as assigned.

Perform related duties as assigned.

Skills/Abilities:

Perform detailed analysis of designs, specifications, and plans.

Apply engineering principles and techniques to evaluating and solving simple to difficult civil engineering problems.

Exercise sound, independent judgment within established procedural guidelines.

Maintain accurate records and files.

Operate office equipment including computers and supporting word processing, spreadsheet, and database applications.

Communicate clearly and concisely, both orally and in writing.

Establish and maintain effective working relationships with those contacted in the course of the work.

Physical Demands and Work Environment:

While performing the duties of this job, the employee is regularly required to sit, use the computer keyboard and mouse, use hands to finger, handle, or feel, reach with hands and arms, talk or hear, stand, walk, and stoop, or crouch. Occasionally lift and/or move up to 25 pounds. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus. Requires the ability to work in an office environment where the noise level is usually moderate.

Qualifications

Knowledge of:

Principles and practices of civil engineering, including design and construction.

Applicable codes, regulations, and standards relating to public works engineering

Engineering mathematics, construction materials, methods, and equipment.

Microcomputer language and programs for the solution of engineering problems.

Safety practices pertaining to area of assignment.

Office procedures, methods, and equipment including computers and applicable software applications such as word processing, spreadsheets, and databases.

Education and Experience

Any combination equivalent to the education and experience likely to provide the required knowledge and abilities would be qualifying. A typical way to gain such knowledge and abilities would be:

Education:

A Bachelor's degree with major course work in civil engineering or a related field.

Experience:

One year of civil engineering experience. Additional technical engineering experience may be substituted for the education to a maximum of two years.

Certifications/Licenses:

Possession of a valid California Class C driver's license.

Possession of an Engineer-in-Training certificate in Civil Engineering is desirable and may be substituted for the degree requirement.

Established: 03/90

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Department: Public Works and Utilities

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