

ASSISTANT/ASSOCIATE CIVIL ENGINEER

DEFINITION

Under general supervision at the Assistant level or direction at the Associate level, performs a variety of technical and professional engineering duties. These include tasks related to the design, investigation, and construction of public works projects both in the field and the office. The role involves providing project coordination, direction, and review for other staff.

SUPERVISION RECEIVED AND EXERCISED

Receives general supervision or direction from assigned supervisory or management staff. Exercises no direct supervision over staff. May provide technical and functional direction and training to lower-level staff.

CLASS CHARACTERISTICS

Assistant Civil Engineer: This is the entry-level class in the Professional Engineer series. Positions in this class typically have little or no directly related work experience. The Assistant Engineer class is distinguished from the Associate Engineer level by the performance of less than the full range of duties assigned to the Associate Engineer level. Incumbents work under immediate supervision while learning job tasks, progressing to general supervision as procedures and processes of assigned areas of responsibility are learned.

Associate Civil Engineer: This is the journey-level class in the professional Engineer series and is distinguished from the Assistant level by possessing a California Professional Engineer (PE) license and the assignment of the full range of duties. Employees at this level receive only occasional instruction or assistance as new, unusual, or unique situations arise and are fully aware of the operating procedures and policies within the work unit.

This class is distinguished from the Sr. Civil Engineer in that the latter has responsibility for organizing, assigning, supervising, and reviewing the work of traffic staff.

Positions in the Assistant/Associate Civil Engineer class series are flexibly staffed, and positions at the Associate level are normally filled by advancement from the Assistant level after gaining the knowledge, skill, and experience that meet the qualifications for and after demonstrating the ability to perform the work of the higher-level class, including possessing a California Professional Engineer (PE) license.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

- Perform professional engineering work in areas such as design, construction, land development, transportation, traffic planning, surveying, mapping, solid waste and landfill operations, stormwater control, and flood control engineering.
- Prepare, analyze, review, and interpret work documents, engineering plans, specifications, reports, and

special projects.

- Prepare accurate cost estimates, budgets, project schedules, and resource requirements.
- Review and comment on environmental impact reports and traffic studies.
- Review encroachment permit applications, issue permits, and inspect utility work for compliance.
- Administer and inspect capital improvement projects, including roadways and bridges.
- Participate in predevelopment reviews, develop conditions of approval, and provide plan check services for compliance with standards.
- Process lot line adjustments, right-of-way abandonments, easements, and grant deed dedications.
- Prepare and provide detailed engineering reports, correspondence, staff reports, ordinances, and resolutions.
- Coordinate capital improvement projects with contractors, utility companies, and other agencies.
- Conduct field inspections and ensure compliance with applicable standards.
- Develop and maintain geographic information systems and coordinate stormwater and groundwater monitoring.
- Generate technical reports, identify, interpret, and analyze technical data.
- Engage with organizational and community groups, respond to inquiries, and investigate complaints regarding engineering issues.
- Establish and maintain positive working relationships with various stakeholders, including the public, contractors, consultants, and internal staff.

Additional Duties for Associate Civil Engineer:

- Oversee a broad range of engineering activities for public works projects, including transportation planning, traffic engineering, and real property.
- Lead the administration and inspection of construction contracts.
- Monitor approved project budgets and ensure adherence throughout the project lifecycle.
- Ensure accuracy and completeness of design plans and specifications.
- Provide recommendations for project approvals, development agreements, and conditions.
- Act in a non-supervisory, "lead worker" capacity when overseeing technical job functions.
- Prepare detailed reports and present findings to the Chief Administrative Office, Board of Supervisors, and other key stakeholders.

QUALIFICATIONS

Some knowledge and abilities may be gained by employees at the Assistant-level while in a learning capacity.

Knowledge of:

- Principles and practices of civil engineering design and construction.
- Principles and practices of land development and transportation planning.
- Principles and practices of traffic engineering.
- Principles and practices of structural engineering.
- Principles and practices of contract administration and project management and evaluation.
- Applicable codes, regulations, standards, and safety practices.
- Construction materials, methods, and equipment.
- Computer applications related to engineering work.
- Engineering mathematics.
- Basic principles of budget development and administration.
- Office administrative principles and practices.

Ability to:

- Perform detailed analysis of designs, specifications, and plans.
- Apply engineering principles and techniques to the solution of civil engineering problems.
- Plan, assign, provide direction, and reviewing the work of others.
- Train others in work procedures.
- Work effectively and efficiently alone and also as part of a team.
- Organize work, set priorities, and exercise independent judgment within policy guidelines.
- Deal tactfully and effectively with the public, staff, other agencies, engineering firms, contractors, developers, manufacturers, and others.
- Prepare clear, concise, and accurate reports, records, and correspondence.
- Analyze complex civil engineering data and reports, evaluate alternatives, and reach sound conclusions.

Education and Experience:

Assistant Civil Engineer:

Possession of a bachelor’s degree from an accredited college or university with major coursework in civil engineering or a closely related field.

Associate Civil Engineer:

Possession of a bachelor’s degree from an accredited college or university with major coursework in civil engineering or a closely related field;

AND

Two (2) years of professional engineering experience in design, construction, and/or right-of-way work at a level equivalent to the Assistant Civil Engineering class.

Licenses and Certifications:

Assistant Civil Engineer:

- Possession of, or ability to obtain and maintain, a valid California or Nevada Driver’s License and a satisfactory driving record.

Associate Civil Engineer:

- Possession of, or ability to obtain and maintain, a valid California or Nevada Driver’s License and a satisfactory driving record.
- Possession and maintenance of valid California Registration as a Professional Civil Engineer or obtain licensure in California by comity (reciprocity) within the one-year probationary period.

PHYSICAL DEMANDS

Must possess mobility to work in a standard office setting and use standard office equipment, including a computer, to inspect construction sites, including traversing uneven terrain, climbing stairs, climbing ladders and scaffolding and other temporary or construction access points; to operate a motor vehicle and to visit various County and meeting sites; vision to read printed material and a computer screen; and hearing and speech to communicate in person, before groups, and over the telephone. This is primarily a sedentary office classification but with extended periods of field work such as inspecting construction sites. 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. Reasonable accommodations will be made for individuals on a case-by-case basis.

ENVIRONMENTAL CONDITIONS

Employees work in an office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances. Employees also work in the field and are 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.

WORKING CONDITIONS

Must be willing to work overtime and occasional night shifts and weekend shifts.