

County of Humboldt Job Specification
ASSOCIATE CIVIL ENGINEER
Classification 0304



DEFINITION

Under general direction, plans, coordinates, oversees, inspects, and performs the work of professional and technical staff performing engineering work; prepares applications for and administers grants and other funding; administers, manages, inspects, and reviews construction and other related projects; performs related work as required.

SUPERVISION RECEIVED AND EXERCISED

Receives general direction from assigned supervisory or management personnel. Exercises direct supervision over lower-level professional and technical engineering staff.

CLASS CHARACTERISTICS

This is the first supervisory level in the professional engineering class series that exercises independent judgment on diverse and specialized engineering work with accountability and ongoing decision-making responsibilities associated with the work. Incumbents are responsible for planning, organizing, supervising, reviewing, and evaluating the work of assigned staff and for performing professional engineering and project management work and are responsible for providing professional level support to management in a variety of areas. Assignments are given with general guidelines and incumbents are responsible for establishing objectives, timelines and methods to complete assignments. Performance of the work requires the use of independence, initiative, and discretion within established guidelines.

EXAMPLES OF TYPICAL JOB FUNCTIONS (Illustrative Only)

Management reserves the right to add, modify, change, or rescind the work assignment of different positions.

- Plans, designs, leads, and inspects all phases of public works projects, including defining the scope of the project; secures adequate funding from Federal and State grant programs and other funding sources; coordinates with consultants, public utility agencies, and others; prepares plans, specifications, and cost estimates; applies engineering principles and practices to specific problems; serves as project manager and ensures projects are completed on time and within budget.
- Acts as resident engineer on construction projects; provides construction administration, management, and inspection of projects, including coordinating schedules and work with other divisions, departments and agencies, leading progress meetings, reviewing and inspecting work to ensure conformance with plans and specifications, tracking and maintaining all project accounting, approving submittals, coordinating schedules, and coordinating public notices of projects.

- Prepares consultant requests for proposal for professional and/or construction services and the advertising and bid processes, including responding to questions; evaluates proposals and recommends project award; prepares submittal packages for legal review.
- Provides technical and professional assistance to staff; reviews plans, specifications, contract documents and other reports and documents to ensure compliance with applicable codes, policies and procedures.
- Prepares and reviews project quantity and cost estimates; analyzes structures, highways and other project sites for engineering, economic, legal, and other considerations.
- Directs and supervises survey crews; directs and reviews the reduction of field data and the preparation of maps, plans, cross-sections and related documents.
- Coordinates the activities of the unit with those of other units, divisions, departments and public and private organizations and individuals.
- Represents the department at Planning Commission, Board of Supervisors, and other public meetings; represents the department and the County in meetings with property owners, engineers, contractors, developers, attorneys and representatives of other organizations.
- Drafts a variety of written communications including analytical reports, studies, correspondence, and revisions to plans, policies and procedures.
- Meets and confers with contractors, engineers, developers, architects, a variety of outside agencies, and the public in relaying and acquiring information, communicating scope and status, and coordinating engineering matters; provides information regarding County development requirements.
- Attends meetings, conferences, workshops, and training sessions and reviews publications and audio-visual materials to become and remain current on principles, practices, and new developments in assigned work areas.
- Trains assigned staff in areas of responsibility and provides for their development.
- Evaluates employee performance, counsels employees, and recommends initial disciplinary action and other personnel decisions.
- Assists in budget preparation and monitors expenditures for assigned projects and budget units.
- Performs other related duties as assigned.

The requirements listed below are representative of the knowledge and ability required. Reasonable accommodations may be made to enable qualified individuals with disabilities to perform the essential functions.

QUALIFICATIONS

Knowledge of:

- Principles and practices of employee supervision, including work planning, assignment review and evaluation, discipline, and the training of staff in work procedures.
- Principles and practices of leadership.
- Civil engineering principles, techniques, policies, and procedures.
- Methods, materials, equipment, and techniques used in the construction of public works projects, including water and wastewater systems, storm water, street, and traffic systems design.
- Principles and practices of Capital Improvement Program budgeting, cost estimation, funding, project management, and grant and contract administration.

- Principles, practices, procedures, and standards related to County public works, engineering infrastructure development and maintenance, and surveying.
- General design, layout, and construction practices for public improvements such as streets, storm drains, grading, and landscaping.
- Practices of researching engineering and design issues, evaluating alternatives, making sound recommendations, and preparing and presenting effective staff reports.
- Safety principles and practices pertaining to the work.
- Grant writing procedures.
- Engineering plan types, review practices, and permit filing and approval procedures.
- Modern developments, current literature, and sources of information regarding engineering.
- Applicable federal, state, and local laws, regulatory codes, ordinances, standards, and procedures relating to civil engineering.
- Bidding requirements for public works projects.
- Techniques for effectively representing the County in contacts with governmental agencies, community groups, various business, professional, educational, and regulatory organizations, and with property owners, developers, contractors, and the public.
- Principles and techniques for working with groups and fostering effective team interaction to ensure teamwork is conducted smoothly.
- Techniques for providing a high level of customer service by effectively dealing with the public, vendors, contractors, and County staff.
- The structure and content of the English language, including the meaning and spelling of words, rules of composition, and grammar.
- Modern equipment and communication tools used for business functions and program, project, and task coordination, including computers and software programs relevant to work performed.

Ability to:

- Select and supervise staff, provide training and development opportunities, ensure work is performed effectively, and evaluate performance in an objective and positive manner.
- Assist in developing and implementing goals, objectives, practices, policies, procedures, and work standards.
- Provide professional leadership for the assigned work unit.
- Design, review, and inspect engineering projects.
- Apply engineering principles and techniques to evaluate and solve simple to difficult civil engineering problems.
- Prepare, read, understand, and interpret engineering construction plans, technical drawings, specifications, studies, reports, permits, and other contract documents.
- Conduct comprehensive engineering studies and prepare reports with recommendations.
- Assist in, develop, and administer contracts for professional services and construction in a public agency setting.
- Perform mathematical and engineering computations with precision.
- Direct, review, and approve the work of contract consultants.
- Establish and maintain a variety of filing, recordkeeping, and tracking systems.
- Conduct complex civil engineering research projects, analyze complex problems, evaluate alternatives, make sound recommendations, and prepare clear, concise, and accurate documentation and correspondence.

- Interpret, apply, explain, and ensure compliance with federal, state, and local policies, procedures, laws, and regulations, technical written material, and County engineering policies and procedures.
- Perform detailed analysis of designs, specifications, and plans.
- Prepare and present clear, concise, and logical written and oral reports, correspondence, policies, procedures, legal descriptions, and other written materials.
- Effectively represent the department and the County in meetings with governmental agencies, community groups, and various business, professional, and regulatory organizations and individuals.
- Effectively use computer systems, software applications relevant to work performed, and modern business equipment to perform a variety of work tasks.
- Communicate clearly and concisely, both orally and in writing, using appropriate English grammar and syntax.
- Establish, maintain, and foster positive and effective working relationships with those contacted in the course of work.

Minimum Qualifications:

Any combination of training and experience that would provide the required knowledge, skills, and abilities is qualifying. A typical way to obtain the required qualifications would be:

Equivalent to a bachelor's degree from an accredited college or university with major coursework in civil engineering or a related engineering field

and

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

Licenses and Certifications:

- Must possess a valid US driver's license upon date of application. Must obtain California driver's license following hire date per California DMV regulations.
- Must possess a valid license as a Professional Civil Engineer in the State of California.

PHYSICAL DEMANDS

When performing work in an office environment:

- Mobility to work in a standard office setting and use standard office equipment, including a computer; to operate a motor vehicle and visit various County sites; primarily a sedentary office classification requiring working at a desk for extended periods of time although standing in work areas and walking between work areas may be required; occasionally bend, stoop, kneel, reach, push, and pull drawers open and closed to retrieve and file information; ability to lift, carry, push, and pull materials and objects up to 50 pounds, or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.
- Vision to read printed materials and a computer screen.

- Hearing and speech to communicate in person and over the telephone.
- Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment.

When performing work in the field:

- Mobility to work in changing site conditions; to sit, stand, and walk on level, uneven, steep, and/or slippery/loose surfaces; to reach, twist, turn, kneel, and bend; and to operate a motor vehicle for extended periods of time and visit various County sites.
- Strength and stamina to perform light to medium physical work; lift, carry, push, and pull materials and objects averaging a weight of 50 pounds, or heavier weights, in all cases with the use of proper equipment and/or assistance from other staff.
- Vision to read printed materials, inspect site conditions and work in progress.
- Fieldwork requiring frequent walking in operational areas to identify problems or hazards, with exposure to hazardous materials in some site locations.
- Finger dexterity is needed to access, enter, and retrieve data using a computer keyboard or calculator and to operate standard office equipment and measuring tools.
- Ability to work on a construction site.

ENVIRONMENTAL CONDITIONS

- Office environment with moderate noise levels, controlled temperature conditions, and no direct exposure to hazardous physical substances.
- Also includes field work with exposure to loud noise levels, cold and hot temperatures, sunlight, inclement weather conditions, road hazards, vibration, chemicals, mechanical and/or electrical hazards, animals, plants, 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.

ADDITIONAL REQUIREMENTS

Some departments may require pre-employment screening measures before an offer of employment can be made (i.e. background screening, physical examination, etc.).