

ENGINEERING TECHNICIAN

DEFINITION

Under general direction, to perform a variety of technical and paraprofessional engineering field and office support work; and to do related work as required.

DISTINGUISHING CHARACTERISTICS

This is the experienced and skilled working level for technical and paraprofessional engineering office and field support work. Incumbents perform a wide range of office engineering, field engineering, surveying, design support, and permit support work. This class is distinguished from the Senior Engineering Technician class in that Senior Engineering Technicians perform more complex and specialized assignments.

REPORTS TO

A County Department Head, or major unit administrator in one of the County's multi-unit agencies.

CLASSIFICATIONS DIRECTLY SUPERVISED

None.

EXAMPLES OF DUTIES

Performs drafting and mapping assignments using manual or computer aided methods; performs a variety of engineering technical support work in the design and construction of public works, roads, bridges, drainage, capital improvement projects, and related areas; prepares graphic displays, organization charts, and similar materials; prepares and maintains master files of drawings, maps, and specifications, researching and updating information as needed; prepares estimates and specifications; may perform basic construction inspection assignments; performs field and office work related to property and right-of-way boundaries, including the research of files and maps; performs checking of survey, parcel, and final maps for compliance with applicable laws, ordinances, and established survey practices; participates as a member of a survey crew, performing field measurement and elevation work; reviews, processes, and issues encroachment, extra load transportation, and a variety of special permits; performs basic traffic engineering and erosion control studies; conducts plan reviews and inspections; reads and interprets accident reports, inputting data into a computer system; performs field investigations of accidents and accident sites; receives and logs public complaints about the County road system; confers with transportation companies regarding routing; provides support for professional engineering staff; prepares and maintains mileage maps; prepares Board resolutions for projects; coordinates grant applications; makes a variety of engineering and mathematical applications; prepares and maintains accurate records, correspondence, technical, and narrative reports; uses a computer and calculators to solve a variety of engineering related problems; provides information to the public, contractors, engineers, developers, and representatives of other government agencies.

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TYPICAL PHYSICAL REQUIREMENTS

Sit for extended periods; frequently stand and walk; ability to walk on slippery and uneven terrain; sufficient manual dexterity and eye-hand coordination to operate office and field engineering equipment; corrected hearing and vision to normal range; verbal communication; use of audio-visual equipment; use of office equipment including computers, telephones, calculators, copiers, and FAX.

TYPICAL WORKING CONDITIONS

Work is performed in both office and outdoor environments; some exposure to variances in temperature and weather conditions; continuous contact with staff and the public.

DESIRABLE QUALIFICATIONS

Knowledge of:

- Principles, practices, and terminology of a variety of engineering technical support work, including drafting, mapping, design, construction, permit approval, traffic, and field inspection.
- Common public works construction methods and materials.
- Engineering mathematics, including geometry and trigonometry.
- Data collection and analysis.
- Use of computers and computer applications related to engineering work.
- Standard office practices and procedures.

Ability to:

- Perform technical engineering office and field support work in a variety of areas.
- Use drafting materials and equipment to prepare skilled layouts, maps, and graphic materials.
- Analyze and evaluate engineering and statistical data and information, developing sound recommendations.
- Develop accurate records, sketches, and notes.
- Prepare a variety of records and reports.
- Read and interpret maps, drawings, and engineering plans and specifications.
- Make accurate mathematical calculations.
- Use a computer and computer applications in the performance of technical engineering support work.
- Effectively represent the Public Works Agency and/or Land Use Agency in contacts with the public, contractors, developers, and other government agencies.
- Establish and maintain cooperative working relationships.

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Training and Experience: Any combination of training and experience which would likely provide the required knowledge and abilities is qualifying. A typical way to obtain the required knowledge and abilities would be:

Two (2) years of previous experience in technical engineering support equivalent to that of an Engineering Aide with Amador County.

Advanced educational training in mathematical subjects such as geometry, advance algebra, or trigonometry and pre-engineering courses in a community college or four year college.

Special Requirements: Possession of an appropriate California Driver's License issued by the Department of Motor Vehicles.