CLASS SPECIFICATION

Yuba County October 2003

CLASS TITLE: Engineering Technician I/II

FLSA STATUS: Non-exempt

JOB SUMMARY:

Performs responsible sub-professional office and field work in support of County engineering activities including surveying, drafting, traffic data collection, public works inspection, permit issuance, map review; performs related work as assigned.

CLASS CHARACTERISTICS:

Engineering Technician I is the entry-level class in this series. Initially under close supervision, incumbents perform the less skilled work while learning County and departmental procedures and becoming familiar with a variety of sub-professional engineering/surveying technical support work. As experience is gained, duties become more diversified and are performed under general supervision. This class is alternately staffed with Engineering Technician II; incumbents may advance to the higher level after gaining experience and demonstrating proficiency, which meet the qualifications for the higher level.

Engineering Technician II is the journey level in this series, fully competent to independently perform the full range of technical engineering/surveying support duties. The work includes both office and field duties, and will vary, but normally have an emphasis in a specific area, such as drafting, surveying, map checking, basic design and/or public works inspection. All positions, however, are characterized by the requirement for knowledge of engineering/surveying concepts, terminology, and mathematics.

EXAMPLES OF DUTIES:

Essential:

- Provides information to the public and other governmental agencies associated with County procedures and regulations, which require the interpretation of policies and procedures, related to plan requirements, property ownership and facility locations; obtains and distributes copies of maps, land descriptions and similar information.
- Reviews a variety of plans and designs to ensure conformance with codes and regulations; reviews engineering drawings and specifications to verify calculations, quantities, accuracy and completeness.
- Reviews deeds, easements, records, documents and other survey data pertinent to a mapping or survey analysis project.
- Prepares and reviews specifications and bid documents for County projects; may perform standard design work under the direction of an engineer.
- Performs a variety of computer-aided and manual drafting tasks to update and maintain County base maps and zoning maps; reviews County base maps for accuracy and completeness.
- Inspects public works construction and County infrastructure such as roads, bridges and related projects performed by private contractors and County crews.
- Works on a survey party on specified County projects; performs field surveys; sets up equipment to make field measurements; may reduce field notes and makes related office computations.
- Collects and maintains records of traffic counts and similar data by placing traffic counters in the field and collecting and recording information.
- Prepares, issues and process encroachment permits in the County right-of-way; processes and maintains records of encroachment permits on County property.

- Makes a variety of computations in an office, laboratory or field setting; enters data into an automated system and produces reports, drawings or statistical summaries.
- Checks various survey maps for mathematical accuracy, closures, area, survey consistency, boundary and legal conformity; adjusts data to align with record information; prepare County Surveyor maps.
- Prepares a variety of written materials such as bid abstracts, correspondence and reports; drafts legal boundary descriptions and other written materials required for office survey activities.
- Performs basic materials tests or takes and transports samples for testing by a contract laboratory.
- Maintains accurate records and files; develops and updates permanent files for County retention.

Important:

- Uses specialized equipment to develop and produce copies of maps, drawings and blueprints; uses specialized surveying instruments and field measuring devices.

QUALIFICATIONS:

Knowledge of:

Engineering Technician I

Engineering or surveying mathematics through trigonometry.
Principles and practices of engineering drafting.
Safety principles, practices and equipment related to the work.
Standard office practices and procedures, including filing and the operation of standard office equipment.
Techniques for dealing with the public, in person and over the telephone.
Drafting practices and equipment.
Basic engineering, surveying and public works inspection terminology and concepts.
Record keeping principles and practices.

Engineering Technician II - In addition to the above:

Concepts, practices and equipment in the assigned engineering or surveying technical specialty
Practices of engineering plan or survey map review and field inspection.
Applicable laws, codes and regulations.

Skill in:

Engineering Technician I

Interpreting, applying and explaining applicable codes and regulations.
Making accurate engineering or surveying calculations.
Reading and interpreting a variety of plans, specifications, maps, descriptions and other technical documents.
Maintaining accurate records of work performed.
Performing basic drafting and mapping work.
Performing basic field data collection and inspection work.
Establishing and maintaining effective working relationships with those contacted in the course of the work.

Engineering Technician II - In addition to the above:

Performing skilled field and office engineering or surveying support work.
Performing independent research, collect and summarize information for the department.

Using the office and field tools and equipment of the assigned technical support area.
Using initiative and independent judgment within established procedural guidelines.

Ability/Physical Requirements:

- Mobility to work in a typical office setting, use standard office equipment, and to drive a motor vehicle to visit field sites.
- Vision to read printed materials and a computer screen for prolonged periods of time.
- Strength and stamina to walk and conduct field inspections and investigations.
- Hearing and speech to communicate in person or over the telephone.

Accommodation may be made for some of these physical demands for otherwise qualified individuals who require and request such accommodation.

Working Conditions:

- Specified positions may work with exposure to heavy traffic, hazardous terrain and various weather conditions.

Licensing and Certification:

- Must possess a valid California Class C driver's license.

Background: The minimum and preferred requirements for this position are described below:

Engineering Technician I

MINIMUM: At least one year of related college level course work (30 semester units) with a minimum of math through trigonometry and two years of progressively related experience in engineering, drafting, construction, surveying, CAD and/or GIS.

PREFERRED: In addition to the minimum requirements, a total of two years (60 semester units) of related college level course work and two additional years of progressively related experience in engineering, drafting, construction, surveying, CAD and/or GIS.

Engineering Technician II

MINIMUM: Two years of related college level course work (60 semester units) with a minimum of math through trigonometry and three years of progressively related experience in engineering, drafting, construction, surveying CAD/GIS with at least one year of experience at a level equivalent to the County's class of Engineering Technician I.

PREFERRED: Bachelor's degree from an accredited college in an appropriate engineering discipline or related field and additional years of progressively related experience with at least one year of experience at a level equivalent to the County's class of Engineering Tech I.

This Class Specification lists the major duties and requirements of the job. Incumbent may be expected to perform job-related duties other than those contained in this document.