



# ENGINEERING TECHNICIAN IV JOB DESCRIPTION

Job Title: **Engineering Technician IV**

Job Code: **EN310**

Pay Grade: **122**

Effective Date: **October 2007**

FLSA: **Non-Exempt**

Revision Date: **April 2009**

## NATURE OF WORK

Under general supervision, acts as team leader for an assigned work group of paraprofessional Engineering Technicians including surveying, drafting, construction projects, contract administration, and other assignments; performs work within scope of authority and provides technical leadership and oversight.

## ESSENTIAL FUNCTIONS:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Serves as technical expert and lead worker on assigned area of Engineering Technician work for Public Works Department (PWD) engineering programs including survey, design and technical administrative work for civil engineering construction and infrastructure projects; performs work within scope of authority; duties may vary according to job assignment.
- Leads and supervises assigned staff; prioritizes and assigns tasks and projects; trains and instructs employees as required; works with employees to correct performance deficiencies.
- Prepares and assists in the presentation of Departmental reports and project information; ensures information from external sources is integrated into County plans and documents.
- Reviews and processes technical information and generates plans, designs, drawings, and technical administrative documents for a variety of PWD projects.
- Manages technical engineering databases; compiles technical data from a variety of sources; edits and verifies data, and updates database; performs quality control checks to assure data integrity.
- Oversees contract administration for PWD projects; develops contract specifications and provisions; tracks and reports compliance and financial information on projects;
- Coordinates projects, activities and information with other PWD staff, County Departments, contractors and outside agencies; coordinates documentation of environmental permitting and mitigation plans.
- Researches, analyzes and evaluates designs, plans, reports, specifications, and estimates.
- Prepares engineering designs, related drawings, specifications and construction project estimates; reviews contractor designs and project documentation for compliance to State, Federal, and PWD standards and specifications.
- Provides technical support for construction and infrastructure projects, including utilities, roadways and bridges; assists with construction project materials management, develops materials quantity estimates,

and assists with sampling and testing; provides field crews with information on boundaries, construction staking and field controls.

- Coordinates and leads field survey crew; ensures accurate recording of data collected and integration of technical data into County and PWD databases; prepares legal descriptions and maps for right-of-way and maintenance of section and grid control; resets section corners as needed to preserve section control.
- Inspects construction projects to verify compliance to safety and quality standards; observes safety and security procedures and reports potentially unsafe conditions to Supervisor.
- Provides information to the public, contractors and consultants on PWD projects and technical matters.
- Inspects condition of County roads, bridges and infrastructure, and verifies compliance to state and Federal standards; makes recommendations for maintenance and repair projects; verifies repair works and materials meet standards and technical requirements.
- Inspects County bridges; prepares National Bridge Inspection Standards (NBIS) reports of the bridge conditions for the Washington State Department of Transportation (WSDOT); maintains current bridge inspection files to NBIS criteria.

**WORKING ENVIRONMENT / PHYSICAL DEMANDS:**

Work is performed in an office environment and outdoors at construction sites and County facilities with exposure to inclement weather, safety hazards, and dangerous tools and equipment; work involves moderate physical demands; must possess strength sufficient to lift and move items weighing up to fifty (50) pounds.

**DISTINGUISHING CHARACTERISTICS:**

This is the lead worker classification in the Engineering Technician job series; the class differs from the Technician III classification by the requirement for functional supervision of other Engineering Technicians and extensive technical knowledge in a specific area of assignment.

**EMPLOYMENT STANDARDS:**

Associate's Degree in Engineering, Computer Science, or related field; AND five (5) years' experience as an Engineering Technician.

A valid Driver's License is required. Specific technical training and certifications are required, depending on area of responsibility.

**KNOWLEDGE AND SKILLS:**

**Knowledge of:**

- County policies and procedures.
- Techniques of investigating and resolving complex engineering problems and conditions.
- Principles and practices of government project management, and methods of evaluating technical issues and construction contract compliance.

- Federal, State, and County laws, regulations, policies, and procedures governing public works projects, including County Road Administration Board (CRAB) regulations and standards.
- Principles and techniques of drafting, mapping, field inspection, surveying, and materials testing.
- Advanced mathematics including geometry and trigonometry.
- Basic engineering design and construction theory and standards.
- Materials, methods, and techniques of modern construction and construction project inspection.
- Engineering maps and technical records.
- Construction plans and specifications.
- Computers and specialized engineering software applications and file management procedures.
- OSHA safety rules and regulations and applicable safety standards involving hazardous environments.

**Skills in:**

- Interpreting and applying engineering standards and procedures, Federal and State rules and regulations, and County policies and procedures.
- Planning and prioritizing multiple tasks, projects and demands.
- Supervising staff, and delegating tasks and authority.
- Reading, understanding, developing, manipulating, and analyzing engineering information in a variety of computerized data formats.
- Technical writing and making mathematical computations.
- Reading and understanding plans, specifications, and schematics.
- Evaluating the work of contractors for compliance with project plans, specifications, regulations, and quality and safety standards.
- Promoting and enforcing safe work practices.
- Reading engineering instruments, meters, and gauges and accurately recording findings.
- Maintaining records and files.
- Establishing and maintaining effective working relationships with co-workers.
- Communicating effectively and following verbal and written instructions.