



# SENIOR ENGINEER DESIGN JOB DESCRIPTION

Job Title: Senior Engineer-Design

Job Code: EN116

Pay Grade: 127

Effective Date: October 2007

FLSA: Non-Exempt

Revision Date: June 2011

## NATURE OF WORK

Under limited supervision, performs professional work of considerable difficulty in managing design, construction, engineering, development, flood control, roads, bridges, utilities, and infrastructure projects for the Public Works Department (PWD).

## 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.*

- Designs, plans, coordinates, and inspects PWD civil engineering projects; analyzes complex issues, develops recommendations, and implements solutions; duties may vary according to job assignment.
- Prepares conceptual plans, detailed plans, specifications, and estimates for PWD construction projects; manages and maintains technical project and program databases.
- Assumes technical responsibility for completing and reviewing complete phases or major components of projects, including engineering reports, calculations, plans, contracts, and special assignments in accordance with PWD standards and codes.
- Coordinates the development of project design concepts and criteria.
- Performs drafting and computing work; checks and directs field operations involved in the gathering and compilation of field data for the design, layout, and construction of roads, flood control, bridges, utilities, infrastructure, and related projects.
- Makes structural and technical engineering analysis of proposed projects; evaluates need for design changes and makes appropriate recommendations; reviews plans for conformity to uniform codes, local ordinances, and State and Federal regulations.
- Inspects and monitors PWD projects under contract; resolves discrepancies between field conditions and design plans; recommends methods of resolving complex problems.
- Writes various analytical reports and makes technical estimates of a specialized nature in connection with engineering projects; checks and reviews final technical specifications for submittal to County Engineer.
- Ensures project deliverables meet scope, schedule, cost, and quality requirements.
- Leads and supervises assigned staff; prioritizes and assigns tasks and projects; trains and instructs staff as required; provides leadership, direction and guidance in technical processes and procedures.
- Responds to questions from citizens and agencies on PWD projects and plans.

- Prepares and assists in the presentation of Departmental reports and project information; ensures information from external sources is integrated into County plans and documents.
- Manages technical engineering databases; compiles technical data from a variety of sources; edits and verifies data and updates database; performs quality control checks to ensure 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.
- Inspects construction projects to verify and enforce compliance to safety and quality standards.

**WORKING ENVIRONMENT / PHYSICAL DEMANDS:**

Work is performed in an office environment; work involves light physical demands and frequent use of a personal computer; occasional inspection work is performed outdoors at construction sites and County facilities.

**DISTINGUISHING CHARACTERISTICS:**

This is the fully qualified senior level in the Registered Engineer job series. Incumbents independently perform the full scope of civil engineering duties, with extensive technical knowledge in a specific area of assignment, and total responsibility for the completion of assigned civil engineering projects.

**EMPLOYMENT STANDARDS:**

Bachelor's Degree in Civil Engineering or related field; AND four (4) year's professional civil engineering experience.

Senior Engineer supervising bridge inspections shall obtain a bridge inspection number/license within 12 months of hire.

A valid Washington State Driver's License is required. Must be registered as a Professional Engineer\* with Washington State Board of Registration.

\*Engineer in training (EIT) certificate and minimum education/experience adequate for hire at senior engineer-EIT pay grade.

**KNOWLEDGE AND SKILLS:**

**Knowledge of:**

- County policies and procedures.
- Fundamentals of civil engineering, mathematics and physics.
- Principles of design, construction, and maintenance of public works projects.
- Methods, materials, and equipment used in public works construction, maintenance, and repair.
- Principles and practices of government project management and methods of evaluating construction contract compliance.
- Federal and State codes and regulations governing civil engineering and public works projects, including County Road Administration Board and Department of Transportation standards.
- Contract development and management principles.
- Computers and specialized engineering software applications and file management procedures.
- OSHA safety rules and regulations and safety standards applicable to hazardous environments.
- Principles of record keeping and records management.

**Skills in:**

- Analyzing technical issues, evaluating alternatives, and developing solutions based on findings.
- Managing staff, delegating tasks and authority, and assessing and prioritizing multiple tasks and projects.
- Interpreting and applying engineering standards and procedures, Federal and State rules and regulations, and City policies and procedures.
- Applying engineering theory and skills to solve PWD project issues and problems.
- Analyzing and evaluating technical engineering data and construction documentation.
- Checking designs, details, estimates, plans, and specifications of engineering projects.
- Interpreting technical instructions and analyzing complex variables.
- Reading, understanding, developing, manipulating, and analyzing engineering information in a variety of computerized data formats.
- Working effectively with others to develop solutions for public works issues.
- Analyzing, evaluating, and interpreting technical data.
- Operating a personal computer utilizing standard and specialized software.
- Establishing and maintaining effective working relationships with other County employees, public officials, and representatives from other local, State, and Federal agencies.
- Communicating effectively verbally and in writing.

This document is not an offer of employment.

I acknowledge that I have read, understand and have received a copy of this job description.

X \_\_\_\_\_  
Signature Printed Dated