

SNOHOMISH COUNTY JOB DESCRIPTION

ENGINEER II-BRIDGE

Spec No. 3030

BASIC FUNCTION

Perform a variety of professional engineering assignments primarily in design of bridges and other structures that require the application of standard engineering principles and methods. May assist in coordinating the work of consultants or engineering staff as it relates to assigned engineering projects.

STATEMENT OF ESSENTIAL JOB DUTIES

1. Provides project engineering of Public Works Bridge projects, including preparing specifications, cost and quantity estimates; the structural and civil design for bridge and drainage improvement projects.
2. Conducts or directs the preparation of studies and preliminary field surveys in preparation for design and construction of bridge replacement projects.
3. Assists the Project Manager (E-III or E-IV) in the preparation of project prospectus for applications for Federal and State funding of Public Works bridge projects, including the recommendations for improvements, estimates of required quantities, project cost estimates, and other relevant data.
4. Researches, analyzes and resolves engineering problems on county bridge construction projects; reviews shop drawings and assist Construction Engineer as needed during construction of bridge project.
5. Analyzes data from traffic studies, forecasts and projections in order to determine road capacity and traffic control, related to bridge replacement or maintenance projects.
6. Prepares right-of-way plans in order to acquire land for Public Works facilities; researches ownership, project requirements, and write legal descriptions to convey property.
7. Provides information to professional engineers, architects, developers, county officials, and the general public to present and explain technical design or features.
8. Attends public meetings and formal public hearings on proposed county bridge construction projects; prepares or supervises the preparation of maps, exhibits, drawings, charts and graphs and provide technical testimony as required.
9. Prepares technical reports, bridge design calculations, and perform load rating of county bridges.

STATEMENT OF OTHER JOB DUTIES

10. Performs other related duties as assigned.

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MINIMUM QUALIFICATIONS

A Bachelor of Science degree in civil engineering or related field and three (3) years of bridge design experience of which at least one (1) year as a bridge project engineer; OR, an equivalent combination of education and experience which provides the required, knowledge, skills and ability to perform the work. Must pass job related tests.

SPECIAL REQUIREMENTS

An Engineer-in Training certificate is required.

A valid Washington State Driver's License is required for employment.

KNOWLEDGE AND ABILITIES

Knowledge of:

- principles, practices and techniques of analysis and design of bridges and related structures
- federal, state and local laws, rules and regulations related to bridge and road design
- the methods and techniques used in administration and management of project budgets
- coordination and management of consultants

Ability to:

- interpret and assess field data used for the maintenance and design of bridges and related facilities
- prepare engineering plans, specifications and estimates for bridges and related roadway improvements
- analyze design reinforced and prestressed bridge components
- assess the relative advantages and disadvantages of alternate courses of action
- gather, analyze, synthesize and evaluate a variety of data including statistical data
- read, interpret and apply federal, state and local laws, rules and regulations governing road and bridge design
- establish and maintain effective working relationships with elected officials, department heads, associates, subordinates, representatives of other agencies and with the general public
- communicate effectively, both orally and in writing
- prepare a variety of correspondence, reports, and other written materials and documents

PHYSICAL REQUIREMENT

Manual dexterity is required when writing reports or operating personal computer. Reading is required for reviewing reports and other technical data. Must be able to speak and hear when

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PHYSICAL REQUIREMENT (Continued)

communicating with associates and the general public. Walking is required to inspect project sites throughout the county.

SUPERVISION

The employee is to reports to the Bridge Project Manager. The work requires some independent judgment and discretion in developing and achieving work unit goals and objectives. The work is reviewed through meetings and periodic status reports, and by evaluation of results obtained.

WORKING CONDITIONS

The work is performed in an office environment with frequent field trips to locations throughout the county to make site visits, attend meetings, or coordinate work activities. Meetings or project requirements may involve working evenings, weekends or holidays as necessary.

Snohomish County is an Equal Employment Opportunity (EEO) employer.
Accommodations for individuals with disabilities are provided upon request.

[EEO policy and ADA notice](#)

Class Established: July 1993
Previous Spec No. 420439
EEO Category: 2 - Professionals
Pay Grade: 243 - Classified Pay Plan
Workers Comp: 1501 Hazardous