

SNOHOMISH COUNTY JOB DESCRIPTION

ENGINEERING TECHNICIAN IV - DRAINAGE

Spec No. 3060

BASIC FUNCTION

This position works as a member of a team within Surface Water Management to investigate and solve drainage problems and inspect storm water facilities. Duties include office research, field analysis, surveying, and small project design, and construction inspection, storm water facility inspection, engineering computations, drafting and report writing.

STATEMENT OF ESSENTIAL JOB DUTIES

1. Researches records in the offices of all county departments for plats, easements, surveys, drainage plans, construction plans, wetland delineation's, or any other documents pertinent to field investigation and analysis.
2. Conducts field investigations at the site; analyzes the local hydrology and determines the effect of topography, geology, soils, vegetation and development on the hydraulic performance of existing structures; interviews local residents and compiles a historical record; takes photographs of salient features; draws a detailed sketch of existing conditions and structures and documents problems and code violations prepares a preliminary written report in the field including immediate referral actions to be taken and possible future long term solutions.
3. Writes a final analysis report of drainage problems informing citizens what actions were taken, what referrals were made, including preliminary field findings; offers technical advice on possible solutions; proposes possible county projects; and discusses citizen responsibilities and liabilities.
4. Conducts topographic surveys and reduces survey field notes to create a map for design purposes; locates utilities and coordinates test borings; sets benchmarks and stationing for horizontal and vertical control.
5. Performs hydraulic/hydrologic calculations and analyses; designs small projects to solve drainage problems; drafts plans; coordinates ordering of materials and material quality control.
6. Performs construction inspection to verify that plans are followed, work is up to standard, and materials are specified; provides field engineering for plan changes due to field conditions; maintains project records; provides technical support for construction crews.
7. Calculates and verifies calculations of quantities, acreage and right-of-way acquisition for design engineers.
8. Educates the public about the watershed they live in and explains their responsibilities and obligations as citizens; offers alternatives to activities that cause pollution, salutation, increased runoff, or other detrimental effects to the watershed.

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STATEMENT OF ESSENTIAL JOB DUTIES (Continued)

9. Helps to resolve conflicts between citizens, or between citizens and public agencies.
10. Inspects public and private storm water facilities to ensure that they function properly; identifies deficiencies and determines course of action to rectify deficiencies

STATEMENT OF OTHER JOB DUTIES

11. Performs related duties as required.

MINIMUM QUALIFICATIONS

Graduation from a two-year accredited program in civil engineering technology, construction management, or related field and two (2) years of on-the-job-field experience in civil engineering, construction, or related field; OR, any equivalent combination of education and experience that provides the required knowledge and abilities. Must pass job related tests.

SPECIAL REQUIREMENTS

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

KNOWLEDGE AND ABILITIES

Knowledge of:

- hydrology, hydraulics, surveying, algebra, trigonometry, geometry, and general environmental awareness
- principles and practices of engineering and surveying
- principles, practices, techniques and instruments related to area of assignment
- mathematics, algebra, geometry, and trigonometry; codes, regulations and standards applicable to area of assignment; current literature, trends, materials and issues in the area of specialization
- computer programs, including database and spreadsheets

Ability to:

- interpret engineering plans and specification
- communicate effectively with engineers, contractors, developers, staff members and the general public orally and in writing with, and be clearly understood in English
- work independently and organize work load
- prepare clear concise written reports
- prepare complex technical calculations
- independently perform detailed drafting, surveying inspection or related technical engineering assignment

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PHYSICAL REQUIREMENT

Must be able to lift catch basin lids in excess of fifty (50) pounds.

SUPERVISION

Employees report to a technical or professional supervisor as assigned. Employee may serve as a lead worker and be responsible for coordinating the work of other employees. Work is performed independently or as a member of a crew. Work is reviewed in progress or upon completion for accuracy and adherence to division engineering standards.

WORKING CONDITIONS

Work is performed in the office or in the field in varying weather conditions. Physical hazard from traffic and construction equipment at the work site may be present.

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: February 1993

Previous Spec No. 420430

Revised: September 2001, January 2008, November 2008

EEO Category: 3 - Technicians

Pay Grade: 238 - Classified Pay Plan

Workers Comp: 1501 Hazardous