



CLASSIFICATION NO. 300

Established: 11/90

Revised: 7/93

FLSA: Exempt

EEO: 2

CIVIL ENGINEER

CLASS CHARACTERISTICS

Under direction, to perform professional engineering work in the planning, design, construction and maintenance of public works and related projects; and to do other work as required.

DISTINGUISHING CHARACTERISTICS

The Civil Engineer series provides professional engineering support within the Department of Transportation and Development or Water Environment Services. Positions may be assigned to road design and construction, traffic design, sanitary sewer design and construction, surface water management, wastewater operations or a related function.

The Civil Engineer is a registered Professional Engineer (P. E.) within the State of Oregon. Incumbents occasionally lead the work of associate engineers and technicians on assigned projects.

The Civil Engineer differs from the Structural Engineer which reviews industrial, commercial and residential building plans for compliance with State of Oregon codes and engineering requirements. It also differs from the Civil Engineer, Associate which is an Engineer In Training (E.I.T.) and which performs professional engineering work under the supervision of a licensed professional engineer.

TYPICAL TASKS

Duties may include but are not limited to the following:

1. Designs and prepares plans and specifications for public works projects including sanitary or storm sewer collection systems, water distribution systems, road improvements and traffic controls; prepares scope of work, project cost estimates and proposal reports.
2. Reviews and comments on site specific development and subdivision proposals with respect to public infrastructure needs; consults with design professionals, realtors and property owners on design standards, drainage control and erosion mitigation.
3. Administers the design, dedication and acceptance of road pavements, traffic controls and infrastructure improvements; reviews and approves subdivision plats and engineering plans for street and storm sewer improvements; assigns inspection fees; coordinates performance bonding process and inspection staff activities.
4. Oversees and conducts traffic engineering studies; collects and analyzes field data; develops conclusions based on statistical and field evidence; designs traffic intersections, channelization, signs, signal and related structures.

5. Serves as project engineer on major engineering projects; leads the work of engineering technicians and other staff assigned to projects.
6. Prepares reports and project cost estimates for federal, county, and city agencies including those for environmental impact studies and environmental assessments; coordinates reimbursement billings, County matching payments and other financial matters related to grant funded transportation and improvement projects.
7. Confers with the public and County staff on issues related to the County road system; communicates information by telephone, correspondence or personal contact.

REQUIRED KNOWLEDGE AND SKILLS

Thorough knowledge of: Principles and practices of Civil, Sanitary and Traffic engineering; English grammar; algebra, geometry, trigonometry, and calculus; geology as applied to road construction; hydrology and hydraulics as applied to the capacity of water distribution and sewage treatment equipment and facilities; overflow and inlet design; engineering computer software applications; drafting principles and practices; structural materials, their strengths and methods for testing; route surveying processes and techniques; basic principles of project management; pavement design; pavement management systems.

Skill to: Communicate effectively, both orally and in writing; apply engineering principles and practices to the design, construction and maintenance works or related projects; utilize hydrological or traffic design microcomputer programs; read topographic maps and gauge station data; lead the work of subordinate personnel; establish and maintains effective working relationships with County staff and the public.

WORKING CONDITIONS

Occasional duties in the field require walking, twisting, balancing, and involve exposure to inclement weather, noise, and slippery and/or uneven terrain.

MINIMUM QUALIFICATIONS

Minimum qualifications are used as a guide for establishing the minimum experience, education, licensure, and/or certifications required for employment in the classification. The following minimum qualifications are established for this classification. Additional minimum qualifications and special conditions may apply to a specific position within this classification and will be stated on the job announcement.

Experience: None required.

Licenses/Certifications:

The following licensure/certifications are required at the time of hire.

- Possession of a Certificate of Registration as a Professional Engineer (P. E.) in the State of Oregon. (Registration in another state where registration was acquired by examination will temporarily fulfill this requirement provided Oregon registration is obtained within one year of employment.)

PRE-EMPLOYMENT REQUIREMENTS

Driving may be necessary for County business. For position(s) with occasional/incidental driving, incumbents must possess a valid driver's license. Accommodation requests for an acceptable alternative method of transportation will be reviewed on an individual basis in compliance with State and Federal legislation. For position(s) with regular driving, incumbent(s) must also possess and maintain an acceptable driving record throughout the course of employment.

Edited: 5/19