



CLASSIFICATION NO. 305
Revised: 2/80, 11/90, 7/20, 3/23
FLSA: Non-Exempt
EEO: 3

ENGINEERING TECHNICIAN 4

CLASS CHARACTERISTICS

Under direction, to perform the most complex and responsible technical duties in the field or office; to lead the work of lower level technicians; and to do other work as required.

DISTINGUISHING CHARACTERISTICS

The Engineering Technician series is primarily oriented to performing technical engineering and surveying functions to assist in the design, construction and maintenance of public works projects such as roads, bridges, traffic control, street lighting, land monuments, storm drains, sanitary sewer systems and treatment facilities. Positions in this series work under the supervision or direction of an advanced level technician, supervisor, or Professional Engineer or Professional Land Surveyor. Individual assignments generally require engineering knowledge and skills gained through work experience or training programs.

This series is distinguished from professional engineering or land surveying classifications which require professional certification, registration or licensure, as well as broad general professional knowledge of engineering or surveying principles and practices applicable to a variety of complex projects or areas.

The Engineering Technician 4 is the highest level in the series. Positions at this level work independently and perform the most complex technical duties under the direction of a supervisor or Professional Engineer or is a Land Survey Intern (LSI) working under the direction of a licensed Professional Land Surveyor. Incumbents make recommendations and resolve the most complex technical problems and coordinate with professional and technical staff.

The Engineering Technician 4 is distinguished from the lower level Engineering Technician 3 which is assigned lead responsibility for specific processes, projects that are moderately complex, and/or on-going programs. It is also distinguished from the CADD System Specialist, which performs complex technical assignments related to Computer-Aided Design and Drafting (CADD) functions and participates in CADD system file management and configuration operations. It is further distinguished from the Technical Services Specialist which has project management responsibility for larger scale or federally funded projects.

TYPICAL TASKS

Duties may include but are not limited to the following:

1. Schedules, coordinates and reviews the work of lower level technicians in the preparation of engineering and construction plans and drawings, surveys, and technical reports; establishes and maintains standards for assigned project or program; reviews final plans to ensure compliance with contract specifications and county, state and federal requirements;

prepares or reviews detailed estimates of costs, materials, labor and equipment; writes progress reports and coordinates advance and final payments to contractors; oversees preparation of final records.

2. Under the responsible charge of a Professional Land Surveyor, as an LSI, prepares and oversees the preparation of maps, legal descriptions, documents and exhibits to be used to evaluate land boundaries, rights-of-way, easements, annexations, and subdivisions; reviews related maps and legal documents prepared by subordinates for accuracy and clarity; gets guidance from Professional Land Surveyor for assistance on complicated survey issues; coordinates work with other interested agencies, departments and contractors.
3. Serves as project manager on the design and construction of capital projects; oversees the inspection of final construction work on complex projects for developing or improving roads, bridges, drainage structures and traffic control devices; directs the work of lower level technicians in performing inspection work to ensure compliance with contract specifications.
4. Performs plan reviews of the most complex projects for constructability and consistency with County standards and specifications.
5. Manages the entire development engineering review process for the most complex projects.
6. Under the responsible charge and verification of a Professional Engineer, performs the most difficult traffic engineering design tasks including traffic signal design; under the responsible charge and verification of a Professional Engineer, designs or makes modifications to designs or standards to meet local conditions; writes and reviews special provisions for contract specifications.

KNOWLEDGE AND SKILLS

Thorough knowledge of: Principles and practices of land surveying, engineering plans, specifications and mathematics; methods and procedures used in the testing of roads, bridges, drainage structures and related construction materials; drafting techniques.

Working knowledge of: Principles of civil engineering design; principles of hydrology, construction and inspection techniques; applicable laws, rules, regulations and ordinances; concepts of traffic engineering and control; technical report writing; principles of lead work supervision; computer applications relating to engineering practices; advanced CAD systems, software, and applications; English grammar and composition.

Skill to: Communicate effectively, both orally and in writing; read and interpret engineering drawings, maps, plans, specifications and related legal documents; lead, train and review the work of lower level technicians; perform difficult mathematical calculations; perform precise engineering measurements; write clear and concise technical reports and correspondence; collect, analyze, and make sound recommendations based on principles and practices in the field of civil and traffic engineering and land surveying; establish and maintain effective working relationships with subordinates, the public, contractors and County personnel.

WORKING CONDITIONS

Field activities include moderately strenuous physical work and incumbents may encounter adverse environmental conditions such as inclement weather and traffic hazards.

Within the Department of Transportation and Development (DTD) County Surveyor's Office – Public Land Corner, duties in the field require frequent walking, stepping, squatting, kneeling, bending, twisting, digging, swinging, balancing, grasping, fine motor control, and the ability to lift and carry up to 90 pounds, including carrying 60 pounds on one shoulder. Duties also involve frequent exposure to slippery and/or uneven surfaces including steep terrain, loud noises, vibration, exhaust fumes and dust, and adverse weather conditions.

Within some DTD Divisions (specific workgroups), duties require frequent standing, walking, squatting, bending, kneeling, reaching, digging, balancing, fine motor control, and the ability to lift and carry up to 60 pounds, push 50 pounds, and pull 70 pounds. Duties also involve frequent exposure to loud noises, vibration, slippery and/or uneven surfaces, exhaust fumes and dust, oil and chemicals, traffic hazards, and adverse weather conditions.

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: A minimum of three (3) years of related experience that would provide the required knowledge and skills to perform the responsibilities of this position.

Licenses/Certifications: Some positions must be registered with the State of Oregon as a Land Survey Intern (requires passing the Fundamentals of Land Surveying (FLS) exam) as described in OAR 820.010.2000-2020, or ability to obtain registration from the State of Oregon within one year of hire.

PRE-EMPLOYMENT REQUIREMENTS

Within some DTD Divisions (specific workgroups) and DTD's County Surveyor's Office – Public Land Corner, employment is contingent upon passing a post-offer physical assessment. Accommodation requests will be reviewed on an individual basis in compliance with State and Federal legislation.

Some positions must successfully pass a criminal history check which may include national or state fingerprint records check.

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.