



COUNTY OF NYE

CLASS TITLE: ENGINEERING TECHNICIAN IV

BASIC FUNCTION:

Reports to the Director of Public Works; performs a variety of professional field and office engineering work.

REPRESENTATIVE DUTIES: *(Performance of these functions is the reason the job exists. Assigned job tasks/duties are not limited to the representative duties).*

All those skills listed in Engineering Technician II & III and the following:

1. Positions at the Engineering Technician IV level supervise professional and/or technical engineering employees. Incumbents perform engineering functions requiring the exercise judgment in the analysis of complex data and the application of recognized concepts and principles to difficult problems that impact daily operations, recommendations, and the development of new policies, procedures, and organizational areas or services. Activities consist of duties that result in significant portions of decisions made in conjunction with others. Positions at this level deal with management at a higher level at or above the supervisor's level and include both internal and external contacts for the purpose of negotiating solutions to major and/or controversial issues within policy guidelines.
2. Under direction, performs, within the assigned task, engineering/surveying work requiring considerable professional training and experience demonstrating the capacity to perform at a high level of competency; supervises professional and/or technical employees; requires the frequent interpretation of policies, procedures, and guidelines; requires discretion in selecting appropriate resources to use in accomplishing assigned work; and does related work as required.
3. Reviews and checks engineering calculations, plans, and specifications for accuracy and compliance with state and federal guidelines for work perfection within the department and work generated by consultants for the department.
4. Performs research and investigation functions to ensure that testing methods and procedures meet engineering specifications; analyzes and makes recommendations for alternate methods for pavement rehabilitation; analyzes mineral aggregate properties relative to their engineering properties; provides information to field personnel relative to the engineering properties of new additives and extenders; designs, develops, and prepares detailed work plans for new and experimental construction materials; evaluates the performance of projects which have been constructed using standard specification materials; evaluates the performance of projects which have been constructed using new or experimental construction materials; and reviews, evaluates, and makes recommendations on all bituminous mix designs.

5. Plans and organizes the work and training of professional and technical employees engaged in surveying, inspection, office procedures, and testing of materials to ensure adherence to contract plans and specifications; directs changes to the contract plans and specifications through contractual modifications by an approved contract change order or supplemental agreement; manages the construction field office; authorizes payments to the contractor for items of work and materials incorporated into a project that meets specifications and quality control requirements; rejects non-specification materials and/or work and assesses liquidated damages for materials and working days; and monitors contractor work force wage rates to assure compliance with federal and state wage and salary regulations.
6. Coordinates contractors' scheduling of personnel with department staff and construction activities and prepares written correspondence to notify divisions within the department and contractors of all pertinent construction activities.
7. Participates in final inspections when the contractor has completed his contractual requirements in substantial compliance with contract plans and specifications; prepares final estimate of quantities and materials; researches and prepares documentation to support the department's position on claims filed against the contract; and represents the county at the Claims Review Board and testifies in court when necessary.
8. Review survey maps for technical completeness and compliance with Nevada Revised Statutes.
9. Surveying and managing county owned & maintained water rights per NRS 533.080.

Knowledge of:

Knowledge of principles and practices for engineering analysis and calculations. Working knowledge of engineering calculations requiring trigonometry, geometry, and analytical thinking. General knowledge of purchasing rules, regulations, policies, and work as part of a team. Knowledge of principles of engineering drafting, including nomenclature, methods, conventional symbols, and sources of information. Knowledge of metric system units and United States equivalents to design projects with information received in either system. General knowledge of roadway construction. Detailed knowledge of how roadway construction plans are put together. Knowledge of related outside transportation agencies, their services, roles, and responsibilities.

Ability to:

Ability to supervise staff including organizing workflow, delegating responsibility, training, evaluating subordinate effectiveness and the administering necessary discipline. Ability to establish and maintain cooperative working relationships with other department divisions' personnel and outside entities. Ability to perform effectively under conditions of fluctuating workload. Ability to make oral group presentations to provide information or explain procedures, policies, and engineering designs. Ability to discuss a variety of job-related topics on short or no notice. Ability to speak clearly and distinctly using correct English to explain engineering functions. Ability to write technical reports on geotechnical engineering problems to describe type and nature of the problem and its solutions. Ability to inspect geotechnical engineering designs and analysis and judge whether they are within the prescribed engineering standards. Ability to modify and/or adapt geotechnical

engineering designs, procedures, or methods to achieve a logical and engineering correct solution to a problem. Ability to analyze complex technical data such as seismic behavior of soils using logic and quantitative reasoning. Ability to read geological, topographical, and hydrological maps. Ability to use soil mechanics testing equipment such as triaxial, resilient modulus, consolidometer, and direct shear to conduct soil testing.

Ability to compare/inspect specifications and items of work and judge whether they are like or different from prescribed standards. Ability to analyze complex technical data such as new specifications using logic and quantitative reasoning. Ability to modify and/or adapt new designs, procedures, or methods to construct better highways. Ability to apply previous experience to solve specific design problems and put a construction plan together so that field personnel can use the construction plans.

EDUCATION AND EXPERIENCE:

Any combination of training, education, and experience that would provide the required knowledge and abilities. A typical way to gain the required knowledge and ability is: High school graduation or equivalent (G.E.D.) or an equivalent combination of education and experience in which the applicant has demonstrated possession of the required level of knowledge, skills, and abilities.

LICENSES:

Valid Nevada driver's license.

WORK DIRECTION, LEAD AND SUPERVISORY RESPONSIBILITIES:

Supervises a survey/engineering crew of three to five persons to include daily work direction and employee evaluations.

CONTACTS:

Supervisor, co-workers, and public.

PHYSICAL EFFORT:

The physical and mental requirements described here are representative of those that must be met by an employee to successfully perform the essential functions of the job.

Subject to physical effort on an on-going basis.

In compliance with applicable disability laws, reasonable accommodations may be provided for qualified individuals with a disability who require and request such accommodations. Incumbents and individuals who have been offered employment are encouraged to discuss potential accommodations with the employer.

WORKING CONDITIONS:

Work is performed under the following conditions: Subject to noise, dust, chemicals, and fumes.

THIS JOB SPECIFICATION SHOULD NOT BE CONSTRUED TO IMPLY THAT THESE REQUIREMENTS ARE THE EXCLUSIVE STANDARDS OF THE POSITION. INCUMBENTS MAY BE REQUIRED TO FOLLOW ANY OTHER INSTRUCTIONS, AND TO PERFORM ANY OTHER RELATED DUTIES AS MAY BE REQUIRED BY THEIR SUPERVISOR.

CONDITIONS OF EMPLOYMENT:

Nye County participates in E-Verify and will provide the Social Security Administration (SSA_ and, if necessary, the Department of Homeland Security (DHS), with information from each applicant's Form I-9 to confirm work authorization. All candidates who are offered employment must complete Section 1 of the Form I-9 along with required proof of their right to work in the United States and proof of their identity prior to starting employment. Please be prepared to provide the required documentation as soon as possible after the job offer is made.

This job description indicates, in general, the nature and levels of work, knowledge, skills, abilities and other essential functions (covered under the Americans with Disabilities Act) expected of the incumbent. It is not designed to cover or contain a comprehensive listing of activities, duties or responsibilities required of the incumbent. Incumbents may be asked to perform other duties as required.