



ENGINEERING TECHNICIAN I JOB DESCRIPTION

Job Title: **Engineering Technician I**

Job Code: **EN313**

Pay Grade: **119**

Effective Date: **October 2007**

FLSA: **Non-Exempt**

Revision Date: **October 2024**

NATURE OF WORK

Under close supervision, learns to perform basic technical civil engineering tasks including surveying, drafting, contract oversight, and other assignments; performs work within scope of authority and training in assigned area of responsibility.

ESSENTIAL FUNCTIONS:

*The following duties **ARE NOT** intended to serve as a comprehensive list of all duties performed by all employees in this classification, only a representative summary of the primary duties and responsibilities. Incumbent(s) may not be required to perform all duties listed and may be required to perform additional, position-specific duties.*

- Learns to perform basic technical work in support of Public Works Department (PWD) engineering programs including survey, drafting, and technical administrative work; performs work within scope of authority and training in assigned area of responsibility; duties may vary according to job assignment.
- Coordinates assigned project activities with other County departments, consultants, and developers.
- Assists in the work of a field survey crew; learns to operate a full range of survey equipment including electronic measuring devices, and other technical engineering equipment.
- Maintains field notes of survey work performed; processes survey information and generates designs and drawings for various engineering and planning projects.
- Assists in the condition inspection of County roads, bridges and infrastructure; performs necessary calculations to facilitate construction staking layout of approved engineering drawings.
- Learns to conduct research of ownership, legal descriptions or other such data needed to complete information required in preparation for construction projects.
- Participates in the preparation of legal descriptions and plat maps for right-of-way and maintenance of section and grid control; resets section corners as needed to preserve section control.
- Assists engineering staff in the preparation of engineering designs, related drawings, specifications and construction project estimates.
- Learns to inspect construction projects to verify compliance to safety and quality standards.
- Operates a variety of trucks, equipment and hand tools in accordance with all safety regulations and procedures; inspects vehicles and equipment and assures all equipment is maintained according to County standards.
- Provides information to the public, contractors and consultants on PWD projects and technical matters.

WORKING ENVIRONMENT / PHYSICAL DEMANDS:

Work is performed in an office environment and outdoors at construction sites and County facilities with exposure to inclement weather, safety hazards, and dangerous tools and equipment; work involves moderate physical demands; must possess strength sufficient to lift and move items weighing up to fifty (50) pounds.

DISTINGUISHING CHARACTERISTICS:

This is the entry-level classification in the Engineering Technician job series; incumbents typically have little or no directly related experience and work under close supervision while learning job tasks.

EMPLOYMENT STANDARDS:

Associate's Degree in Engineering, Computer Science, or related field.

A valid Driver's License is required.

KNOWLEDGE AND SKILLS:

Knowledge of:

- County policies and procedures.
- Principles and methods of drafting, mapping, field inspection, surveying, and materials testing.
- Advanced mathematics including geometry and trigonometry.
- Basic engineering design and construction theory.
- Materials, methods, and principles of modern construction.
- Field data collection methods.
- Engineering maps and technical records.
- Construction plans and specifications.
- Federal, State, and County policies and procedures governing public works projects.
- Computers and specialized engineering software applications and file management procedures.
- OSHA safety rules and regulations and applicable safety standards involving hazardous environments.

Skills in:

- Learning the technical skills and procedures required to complete assigned projects.
- Reading technical documents and producing engineering drawings.
- Technical writing and making mathematical computations.
- Reading and understanding plans, specifications, and schematics.
- Safe and efficient operation and maintenance of trucks and equipment according to standard operating and safety procedures.
- Following safe work practices.
- Reading engineering instruments, meters, and gauges, and accurately recording findings.
- Maintaining records and files.
- Establishing and maintaining effective working relationships with co-workers.
- Communicating effectively and following verbal and written instructions.