Engineering Technician

CLASS TITLE	CLASS CODE	SALARY GROUP	SALARY RANGE
ENGINEERING TECHNICIAN I	2123	A16	$40,918 - $61,130
ENGINEERING TECHNICIAN II	2124	A18	$45,521 - $71,055
ENGINEERING TECHNICIAN III	2125	A20	$51,158 - $81,351

GENERAL DESCRIPTION

Performs engineering technician work conducting surveys and inspections; collecting and correlating engineering data; and preparing reports, drawings, and calculations.

EXAMPLES OF WORK PERFORMED

Inspects maintenance and construction projects for compliance with specifications and requirements.

Inspects materials, plant equipment, instruments, and production procedures.

Conducts laboratory tests to verify whether construction materials conform to department specifications.

Coordinates the procurement of equipment, instruments, and parts.

Installs, operates, and maintains equipment and instruments related to the gathering of engineering or traffic data.

Maintains construction project records.

Prepares estimates, plans, and specifications for maintenance and construction projects; performs mathematical calculations.

Prepares drawings and cross sections of maintenance and construction projects; prepares tracings, inks, and letters.

Prepares, processes, and maintains reports.

Assists with core drilling operations and equipment.

Performs related work as assigned.

DESCRIPTION OF LEVELS

Examples of work and descriptions are meant to progress through the levels. For example, an employee at level III may also perform work listed within the previous levels.

Note: *Factors that may distinguish between the levels include the degree of independence in performing the work; the scope of responsibility; the scope, nature, size, and complexity of the project, survey, or inspection; the types of equipment used; and the employee's related work experience, education, and certifications.*

Employees at the journey level may independently perform the full range of work listed in the examples above and may assist others in performing work of greater complexity. Senior-level employees (levels II and III) may perform the full range of work identified in the preceding levels and may serve as a lead worker and/or coordinate or oversee that work for others.

ENGINEERING TECHNICIAN I: Performs moderately complex (journey-level) engineering technician work. Works under general supervision, with moderate latitude for the use of initiative and independent judgment. Employees at this level may routinely assist others in performing work of greater complexity.

ENGINEERING TECHNICIAN II: Performs highly complex (senior-level) engineering technician work. Works under limited supervision, with considerable latitude for the use of initiative and independent judgment. Employees at this level may:

- Analyze traffic data and traffic volumes for state, district, and county traffic maps.
- Conduct cost analysis studies.
- Conduct statistical studies of traffic counts, predict future trends in traffic volume, and submit reports to be used in planning highway improvements and relocations.
- Test and maintain systems using analog or digital microprocessing equipment and assist in the setup and operation of equipment.

ENGINEERING TECHNICIAN III: Performs advanced (senior-level) engineering technician work. Works under minimal supervision, with extensive latitude for the use of initiative and independent judgment. Employees at this level may:

- Oversee the collection and reporting of engineering and traffic data and the procurement, maintenance, and operation of traffic counting machines and other equipment.
- Oversee surveys and inspections and coordinate the installation, maintenance, and repair of electronic systems.
- Confer with contractors on plans, specifications, and quality of work.
- Determine the methods, equipment, and project schedules required to repair or modify computer-based switching systems.
- Review and monitor construction project documents to ensure compliance with plans, specifications, and estimates.
- Examine the structural strength of manufactured items and materials.

- Make structural and design calculations for proposed projects and assemble and review calculations from other sources.
- Plan, organize, schedule, and conduct engineering or traffic work projects.

GENERAL QUALIFICATION GUIDELINES

EXPERIENCE AND EDUCATION

Experience in surveying, traffic, or engineering work. Graduation from a standard senior high school or equivalent is generally preferred. Experience and education may be substituted for one another.

KNOWLEDGE, SKILLS, AND ABILITIES

For all levels

- Knowledge of surveying and engineering principles, techniques, and procedures; mathematics; methods, procedures, equipment, and materials used in construction and maintenance work; applicable inspection methods, procedures, and techniques; laboratory testing procedures and methodologies; and applicable safety requirements.

- Skill in the operation and maintenance of applicable equipment, tools, and surveying instruments.

- Ability to conduct inspections and laboratory tests, to prepare reports, to perform mathematical calculations, and to communicate effectively.

Additional for Engineering Technician III level

- Ability to serve as a lead worker providing direction to others.