

ENGINEERING TECHNICIAN

FUNCTION OF THE JOB

Under supervision, to perform technical highway engineering work; performs other duties as required.

CHARACTERISTIC DUTIES AND RESPONSIBILITIES

1. May serve as a crew chief; assists with the training of new employees assigned to the survey crew.
2. Performs surveys of existing roads, i.e., marking for aerial photography, surveying cross sections of roads, locating existing structures, trees, fences, and public works, etc.
3. Supervises the operations of a construction staking crew, staking and marking new road construction, and determining alignment for final grading levels and roadbed levels.
4. May perform on-site inspections of the work of construction crews to ensure that all phases are being completed according to specifications and instructs construction crews on grade adjustments, culvert placement, and landscaping activities.
5. Keeps accurate records and assists in the preparation of complex and detailed written reports.
6. Calculates quantities of materials to be used to complete construction projects as shown on plans.
7. Performs drafting using traditional drafting tools, computer aided design equipment, and engineering software.
8. Assists in managing assigned elements of the department's computerized highway asset management system.
9. Establishes and maintains effective working relationships with staff, associates, contractors, and the public.
10. Maintains prompt, predictable, and regular attendance.
11. Performs other duties as required.

QUALIFICATIONS

Essential Knowledge and Abilities

1. Working knowledge of highway construction, survey methods, materials, maintenance, and equipment.
2. Working knowledge of the laws, codes, and regulations pertaining to the construction of roadways.
3. Working knowledge of the procedures and practices applied in the inspection of work and materials used in highway construction.
4. Working knowledge of the modern principles and practices of civil engineering, especially in the areas of traffic engineering and highway design.
5. Some knowledge of computerized department program software, internet access, and database, spreadsheet and word processing programs.
6. Ability to utilize word processing, database, and spreadsheet programs.
7. Ability to plan, assign, review, and supervise the work of others.
8. Ability to make complex mathematical computations, and to use surveying, drafting, and electronic calculating equipment.
9. Ability to analyze data, research information, and compile the results into detailed recommendations.
10. Ability to read construction plans and to interpret specifications.
11. Ability to keep accurate and detailed records and field notes, and to write detailed technical reports.
12. Ability to establish and maintain effective working relationships with staff, associates, contractors, and the public.
13. Ability to effectively interact with sensitivity with persons from diverse cultural, socioeconomic,

QUALIFICATIONS (continued)

educational, racial, ethnic, and professional backgrounds, and persons of all ages and lifestyles.

Training and Experience

1. High School Diploma or GED.
2. Two (2) years of progressively responsible work experience including surveying, drafting, and road design duties.
3. Post high school education from a recognized college or university with major courses in geology, geography, landscape architecture, civil engineering, or a closely related field may be substituted for the work experience requirement on a year-for-year basis up to a maximum of two (2) years.