



Engineering Specialist 2

Category: Classified/Excluded
Pay Grade: C28
Job Code: 16794

To perform this job successfully, an individual must be able to perform the essential job functions satisfactorily. Reasonable accommodations may be made to enable individuals with disabilities to perform the primary job functions herein described. Since every duty associated with this position may not be described herein, employees may be required to perform duties not specifically spelled out in the job description, but which may be reasonably considered to be incidental in the performing of their duties just as though they were actually written out in this job description.

JOB SUMMARY

This is very responsible technical engineering work which may involve day to day supervisory responsibility for the preparation or review of plans, designs or specifications within departmental projects. Employees in this class assume responsibility for complex and diversified projects involving design, construction, review, operation and maintenance of a variety of public works roads and drainage programs or facilities. Employees are expected to exercise considerable independent judgment in resolving problems. Employees occupying this classification who receive their Professional Engineering certifications are eligible for additional earnings. If the additional earnings are accepted, the employee will be expected to perform as an Engineer of Record, signing and sealing documents, etc., if the assigned work requires such professional endorsement. The position reports to a senior manager, supervisor, or designee.

ESSENTIAL JOB FUNCTIONS (examples, not all inclusive)

- Leads a design team for specific projects and prepares drawings, specifications and cost estimates;
- Reviews final pay estimates on completed contract work prior to payment;
- Makes technical engineering investigations, prepares reports on findings and assigns specific duties to subordinates on assigned projects;
- Assists in planning and directing an operational section or supervising construction or inspection of highway, structural, drainage, water supply and sanitary sewerage projects;
- Confers with contractors working on public works construction projects to explain and interpret plans and specifications, checks materials, makes arrangements for tests by laboratories and makes progress reports;
- Oversees the ITS Control Center ensuring quality control, as well as effective and timely communication / coordination among the operating staff;
- Confers with engineers, contractors, and inter-agencies on water, reclaimed water, and solid waste projects;
- Oversees complex and diversified projects involving the design, construction, analysis, review, inspection, maintenance, operation and project management of ITS, traffic control systems, traffic signals and field inspection;
- Supervises and inspects construction in public right-of-way, reviews plans for proposed construction, confers with builders to ensure county standards are met;
- Plans, assigns, directs and reviews work of inspectors assigned to public works construction projects;
- Assists in planning and supervising operations or maintenance of major public works facilities including highways, bridges, water supply, sanitary sewerage and drainage facilities;
- Provides assistance with existing field conditions in event of emergency breaks or needs;
- Performs information processing related duties including using available statistical packages or programs, encoding data, data entry and retrieval and routine information terminal operations and programming/reprogramming;
- Performs other related job duties as assigned.

QUALIFICATIONS

Education and Experience:

Eight (8) years highly responsible experience in engineering, transportation, computers, or electronics; or Bachelor's degree in civil engineering, electrical engineering, computer sciences or related field with a basic understanding of the use of CAD systems; and four (4) years of experience in the design, review or construction of public works or utilities projects; or an equivalent combination of education, training and/or experience.

Special Qualifications (May be required depending on area of assignment):

- Florida Driver's License or Florida Commercial Driver's License and endorsement, if any.
- Assignment to work a variety of work schedules including compulsory work periods in special, emergency, and/or disaster situations.
- Specialized certifications related to engineering studies or traffic signal operations and maintenance. Candidate to possess prior job tenure and experience from within the same unit or assignments in the same line of work.
- Candidate to demonstrate more advanced proficiency, competency, and satisfactory completion of regularly assigned work in an independent manner. Appointing Authority retains discretion to employ an incumbent at this level or advance the incumbent non-competitively or competitively, after a candidate meets the minimum qualifications to an in-line career ladder position (such as, to a nonsupervisory technical or nonsupervisory specialist position in the same unit assigned in the same line-of-work) within the same organization or department.
- Other highly desirable knowledge, skills, abilities, and credentials required for a specific position.

Knowledge, Skills and Abilities:

- Knowledge of the principles and practices of civil engineering and advanced mathematical applications to surveying and engineering computation;
- Knowledge of the principles and practices related to traffic control systems and signal timing;
- Knowledge of the principles, techniques and practices of topographic or hydrographic surveying, land surveying and traffic engineering;
- Knowledge of modern development, current literature and sources of information on public works design, construction, operations and maintenance;
- Skill in the use of engineering instruments and equipment and ability to utilize computer applications to engineering design, drafting and mapping;
- Ability to work with minimum supervision under broad guidelines and obtain, analyze, summarize and maintain transportation systems technical engineering data and records;
- Ability to identify and analyze ITS/ATMS operational and technical issues and resolve independently; and
- Ability to develop and supervise major highway, structural, water supply and sanitary sewerage projects and the work of assigned subordinates.

PHYSICAL/MENTAL DEMANDS

This work requires exerting up to 20 pounds of force occasionally, and/or up to 10 pounds of force to move objects. Additionally, the following physical abilities are required:

- **Balancing:** Maintaining body equilibrium to prevent falling while walking, standing or crouching on narrow, slippery, or erratically moving surfaces. The amount of balancing exceeds that needed for ordinary locomotion and maintenance of body equilibrium.
- **Climbing:** Ascending or descending ladders, stairs, scaffolding, ramps, poles and the like, using feet and legs and/or hands and arms. Body agility is emphasized.
- **Crouching:** Bending the body downward and forward by bending leg and spine.
- **Feeling:** Perceiving attributes of objects, such as size, shape, temperature or texture by touching with skin, particularly that of fingertips.
- **Fingering:** Picking, pinching, typing, or otherwise working, primarily with fingers rather than with the whole hand as in handling.
- **Grasping:** Applying pressure to an object with the fingers and palm.
- **Handling:** Picking, holding, or otherwise working, primarily with the whole hand.

- Hearing: Perceiving the nature of sounds at normal speaking levels with or without correction. Ability to receive detailed information through oral communication, and to make the discrimination in sound.
- Kneeling: Bending legs at knee to come to a rest on knee or knees.
- Lifting: Raising objects from a lower to a higher position or moving objects horizontally from position-to-position. Occurs to a considerable degree and requires substantial use of upper extremities and back muscles.
- Mental Acuity: Ability to make rational decisions through sound logic and deductive processes.
- Reaching: Extending hand(s) and arm(s) in any direction.
- Repetitive Motion: Substantial movements (motions) of the wrist, hands, and/or fingers.
- Speaking: Expressing or exchanging ideas by means of the spoken word including the ability to convey detailed or important spoken instructions to other workers accurately and concisely.
- Standing: Particularly for sustained periods of time.
- Stooping: Bending body downward and forward by bending spine at the waist. Occurs to a considerable degree and requires full motion of the lower extremities and back muscles.
- Talking: Expressing or exchanging ideas by means of the spoken word including those activities in which they must convey detailed or important spoken instructions to other workers accurately, loudly, or quickly.
- Visual Acuity: Have close visual acuity such as color differentiation, depth perception, and adequate field vision.
- Walking: Moving about on foot to accomplish tasks, particularly for long distances or moving from one work site to another.

WORKING CONDITIONS

Work is typically performed in a safe and secure work environment that may periodically have unpredicted requirements or demands.