

SIGNAL SYSTEMS ENGINEER

CODES/PAY GRADE

Class Code: 2011

EEO Code: B

Pay Grade: 217

MAJOR FUNCTION

Highly technical work developing and maintaining an on-going traffic signal program for signal systems, traffic signals, telecommunications, and video monitoring throughout the county. Supervises the design and construction of new signals and signal systems.

ILLUSTRATIVE DUTIES

(NOTE: These are intended only as illustrations of the various types of work performed. The omission of specific duties does not exclude them from the position if the work is similar, related, or a logical assignment to the position.)

Monitors the existing signal and signal systems to assure efficient and safe movement of traffic. Designs signal systems and patterns.

Plans for timely installation of new signals and expansion of existing signal systems. Schedules and administers the design, contracting and construction of signal and signal system projects.

Supervises an Engineering Assistant I in the design of traffic signals, plans preparation, construction estimates and construction supervision.

Evaluates and analyzes need for new signal systems to meet the demand for projected growth. Plans for equipment, location of signals, types of signals, telecommunications and video monitoring systems.

Utilizes microcomputer programs to retime traffic signals and signal systems to reduce vehicle stops and delays. Develops timing plans using computer programs for signals and signal systems.

Ensures that all signals and signal systems meet current AASHTD, Federal Highway Administration and Florida Department of Transportation standards and specifications.

Reviews signal, sign and pavement marking plans prepared by the Florida Department of Transportation, consultants, developers, and other agencies in Volusia County.

Reviews crash report data at high accident locations, and develops and implements improvements to enhance safety and operations of signalized intersections throughout the County.

(Signal Systems Engineer continued)

Performs related work as required.

KNOWLEDGE, ABILITIES AND SKILLS

Knowledge of the newest developments in traffic controllers. Knowledge of computer programs for timing, traffic signals, and signal systems. i.e.: transyt 7-F, Passer II, AAP, TSDDD, SOAP, HCS.

Ability to design traffic signals and signal systems. Ability to evaluate traffic movement for efficiency and reduction of stops. Ability to evaluate systems for project growth.

MINIMUM QUALIFICATIONS

Bachelor's degree in Civil Engineering with a concentration in transportation and/or Traffic Engineering, Electrical Engineering or closely related field, and two (2) years of experience in traffic signal systems.

Must possess valid Florida driver's license.

A comparable amount of education, training, or experience may be substituted for the minimum experience.

ADA REQUIREMENTS

Physical Demands: Light to medium work. Ability to see (acuity, depth perception, color,) hear, talk; finger dexterity; lift (40 lbs), carry, climb, stand, walk, reach, grasp.

Environmental Demands: Both inside and outside work. Ability to tolerate inclement weather (heat, humidity, cold, rain) and traverse uneven/wet/undeveloped terrain (soft sand, constructions sites.) Exposure to noise, vibration, dust.

Mental Demands: Ability to read and comprehend professional and technical manuals; mechanical drawings, blueprints, maps; safety rules, letters, reports, abstracts, and summaries. Ability to write reports, evaluations, summaries, letters, procedures, and policies. Ability to perform advanced mathematical functions. Ability to speak publicly and extemporaneously; conversant in policies, techniques and procedures of discipline. Ability to analyze data and develop conclusions. Ability to identify and resolve problems.