

## **TRAFFIC SIGNAL & ENGINEERING OPERATIONS LEAD**

This position is responsible for both engineering design and traffic signal technician supervision to ensure the effective functioning of the county's traffic signals and their coordination with traffic signals operated by regional partners. Primary responsibilities will include technical and supervisory oversight of engineering design and technical operations staff who engineer, install, troubleshoot, repair, upgrade, and replace traffic signals. The incumbent performs work with considerable independence, contributes to annual and long-range planning, staffing, and in decision making in the coordination of projects, provides input in establishing department base line budget, and participates in the work of the unit.

### **CLASSIFICATION DISTINCTIONS**

This classification is the lead worker for engineering design and traffic signal staff. The incumbent exercises independent judgment and demonstrates an advanced level of technical expertise

### **KEY OR TYPICAL TASKS AND RESPONSIBILITIES:**

- Prioritizes, assigns, coordinates, monitors, and evaluates work; resolves work and personnel conflicts; ensures ongoing adherence to safety practices in performance of work activities; provides input to management staff regarding performance evaluations, discipline, training, major job reassignments, and recruitment selection.
- Coordinates and communicates with outside agencies; provides technical assistance to internal and external stakeholders; responds to requests for information; acts as expert witness regarding traffic signal operation.
- Determines general and specific traffic signal equipment to be installed and operated; establishes equipment setting documentation procedures and changes.
- Establishes testing regimens to ensure safe and efficient operation of traffic signals; prioritizes and schedules signal and intersection upgrades; tests and inspects signal control equipment for installation.
- Designs new and/or upgrades traffic signals; reviews and approves traffic signal designs Serves as Engineer in charge of signal and intersection designs.
- Provides coordination for field adjustment of traffic signals.

- Develops and maintains Ethernet communication links (fiber, radio, wire).
- Prepares and/or supports grant applications.
- Assists with budget development and monitoring.
- Identifies and ensures that staffing levels and needs, equipment and necessary supplies are met; monitors activity/project progress ensuring timely completion of work; Completes various reports and records regarding equipment used and work accomplished.
- Evaluates new technology to be incorporated in traffic signal systems to provide improved traffic safety and operations.
- Attends program-related meetings and conferences, serves as department representative for engineering design and traffic issues and needs. May be designated to attend and/or serve on various committees or meetings on behalf of the Division or the Public Works Director.
- Performs other related duties as assigned.

## **QUALIFICATIONS**

### **Education and Experience:**

- Bachelor's degree in traffic engineering, civil engineering, electrical engineering or a closely related field – ***and*** – four (4) years of experience as a Traffic Engineer or equivalent position.
- Directly related experience in traffic signal engineering and operations.
- IMSA Level II certification for traffic signals.
- Registration as a professional civil engineer.
- Possession of a valid driver's license upon date of hire.
- Lead or Supervisory experience desirable.

**Knowledge of:** design and operation of traffic signal systems; Naztec Apogee traffic signal controllers in NEMA electrical environments; occupational hazards and safety precautions applicable to the work; computer networking including Ethernet communication, fiber optic interconnect and Ethernet radio; traffic engineering principles, including traffic signal design, roadway design, electrical theory, development of plans, specifications and estimates; processes used by local agencies in determining prioritization of capital projects; local, state and Federal laws, best practices for traffic operations, and application of the Manual of Uniform Traffic Control Devices (MUTCD) in the urban and rural environment; Ethernet communications systems, including selection and programming of Ethernet edge and hub switches, fiber optic interconnect design, Ethernet radio design and implementation; project management principles including engineering, administration and management principles/practices; application and

interpretation of County regulatory codes, state regulatory and legislative requirements; work standards and codes applicable to the job.

**Ability to:** coordinate traffic signal plans and needs with transportation planning efforts; resolve traffic signal operational problems in the field; communicate highly complex technical information to those contacted in the course of work who do not have the technical background in traffic signal systems; champion innovation with new technologies, and continuous improvement processes; prepare written reports, and maintain logs and records of statistical data; identify and design traffic signal systems necessary to meet legal requirements, control traffic, and meet safety requirements; monitor and maintain equipment, supplies and budget; follow written and oral instructions and express ideas effectively orally and in writing; to establish and maintain effective relationships with internal and external stakeholders; obtain a valid driver's license at time of hire.

### **WORK ENVIRONMENT AND PHYSICAL DEMANDS**

Employees in this classification work in all types of climates, both indoors and outdoors. Work may be performed in adverse weather and environmental conditions. Indoor work entails an office setting which includes work on personal computers and related software. Occasionally required to use County or personal vehicle to conduct field work or travel to conferences, meetings and seminars. Employees may work alone and be required to perform on-call duties including nights, weekends and holidays. Regular face to face contact is required.

Physical demands include but are not limited to standing, crouching, climbing stairs and ladders, reaching, twisting, repetitive motion and lifting.