



# CITY OF OMAHA CLASS SPECIFICATION

## CLASSIFICATION TITLE: TRAFFIC SIGNAL TECHNICIAN II

BARGAINING UNIT: [CIV BARGAINING](#)

CODE NUMBER: 6870

PAY RANGE CODE: [10125](#)

REVISION DATE: 3/30/17

### **NATURE OF WORK:**

This is journey level work involving the installation, maintenance, repair, and testing of traffic signal systems and their associated components in the shop and in the field. An incumbent in this class exercises considerable independent judgment in the performance of their duties, based on established practices and procedures, and may provide technical and general supervision over subordinate employees.

**ESSENTIAL FUNCTIONS:** *(Any one position may not perform all the duties listed, nor do the listed examples include all the duties that may be performed in positions allocated to this class.)*

Installs, upgrades, maintains, and performs scheduled, unscheduled, and emergency repairs on traffic signal systems, traffic signal communications equipment, and associated components.

Checks and makes pre-determined adjustments to traffic controller timing programs as indicated.

Trains, plans, schedules, assigns, oversees, and evaluates the work of a number of subordinates.

Uses computers and mobile devices to facilitate setup, programming, and troubleshooting of traffic signal controllers and associated components.

Locates and marks the location of underground cables.

Maintains and repairs assigned tools and equipment.

Programs traffic signal controllers to perform defined operations and signal timing functions.

Conducts inspections of work performed by independent contractors.

Documents and compiles reports reflecting one's own completed work as well as the work of subordinates.

Maintains regular job attendance in accordance with a schedule established for the position by the supervisor.

Performs other related duties as assigned or as the situation dictates within the scope of this classification.

**REQUIRED KNOWLEDGE, SKILLS, AND ABILITIES:**

Knowledge of the standard tools, materials, and practices used in electronic, electro-mechanical, and solid state equipment repair work.

Knowledge of the principles and applications of electrical theory.

Knowledge of the theories, principles, and applications of serial and IP communications via twisted pair copper wire, fiber optic cable, wireless, and other transmission media.

Knowledge of the hazards and safety precautions necessary in working with and around electricity.

Knowledge of the hazards and safety precautions necessary in working within and around active traffic in the field.

Knowledge of and ability to operate a computer or other technology using standard or customized computer or systems software applications appropriate to the assigned tasks.

Skill in the maintenance and use of assigned tools, equipment, and testing instruments.

Skill in the logical analysis of complex electrical and electronic systems and determining causes of malfunctions.

Skill in the installation and repair of under and above ground vehicle detection devices.

Skill in managing and maintaining fiber infrastructure, including experience with fiber splicing techniques and testing.

Ability to learn and adapt to advances in computer and electronics device technology and software.

Ability to establish and maintain effective working relationships with fellow employees and members of the general public.

Ability to read and interpret sketches, schematics, wiring and circuit diagrams, prints, specifications, and construction plans.

Ability to use the standard tools used in the construction trades and to operate heavy equipment used in the repair and installation of traffic signals.

Ability to use testing equipment to locate, identify, and analyze faults in traffic signal equipment.

Ability to modify, maintain, repair, or replace faulty traffic signal equipment.

Ability to discern colors, especially wiring color codes.

Ability to understand written or oral instructions.

Ability to adhere to safety policies, procedures, and guidelines.

Ability to plan, schedule, oversee, and evaluate the work of subordinates.

Ability to adhere to and keep up to date on federal, state, and local policies and executive orders.

Ability to stand from 51 to 75% of the time; to reach, bend, stoop, walk, and lift from 26 to 50% of the time; and to climb, balance, squat, kneel, crouch, crawl, push, pull, type, and sit up to 25% of the time.

Ability to use up to fifty (50) pounds of force to move objects up to 33% of the time; to use up to twenty (20) pounds of force to move objects from 34 to 66% of the time; and to use up to ten (10) pounds of force to move objects from 67 to 100% of the time.

**EDUCATION AND EXPERIENCE:** *(The knowledge, skills, and abilities above may be acquired through, but are not limited to, the following combination of education and/or experience.)*

Associate's degree in electronics, mechanical, computers, or digital electronic theory and repair

AND

Four (4) years of experience in electronic, mechanical, computers or digital electronic maintenance and repair work, including two (2) years of experience with traffic signal and communication infrastructure.

OR

Eight (8) years of experience in electronic, mechanical, computers or digital electronic maintenance and repair work, including four (4) years of experience with traffic signal and communication infrastructure.

Additional formal training may be substituted for experience on a one-to-one basis.

### **SPECIAL QUALIFICATION**

Must possess a Class "B" Commercial Driver's license with "N" and air brake endorsements by the end of the probationary period.

Must obtain and maintain certification through the International Municipal Signal Association (IMSA) in Work Zone Safety, Traffic Signal Level I and II prior to progressing to step C.

Must acquire and maintain a 2nd Grade Hoisting and Portable Engineering Certificate by the end of the probationary period.

**WORKING CONDITIONS:** *(The conditions herein are representative of those that must be met by the employee to successfully perform the essential functions of the job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential job functions.)*

Work is performed both in and out of doors in all weather conditions. At times incumbents may be exposed to extremes in heat, cold, and humidity, in high places or confined spaces, in conditions such as smoke, dust, mists, gases, high noise levels, and in heavy traffic.

**EQUIPMENT OPERATION:** *(Any one position may not use all of the tools and equipment listed nor do the listed examples comprise all of the tools and equipment that may be used in positions allocated to this classification.)*

High Reach Boom Truck with Hoist	Computer/Tablets	Service Van
Oscilloscope	Controller Test Equipment	Printer
Eprom Programmer	Underground Cable Locators	Copier
Two-way Radio	Telephone	
Optical Time Domain Reflectometer (OTDR)		
Fiber Communication Testing Tools		

Previous Revision Date(s): 3/25/93  
5/28/98  
9/30/04  
6/17/10  
9/26/13