

Position:	Building Automation System (BAS) Analyst, I	FLSA:	Non-Exempt
Department/Site:	Facility Services	Salary Grade:	31
Reports to/Evaluated by:	Energy Management Coordinator	Salary Schedule:	Classified

SUMMARY

Manages and maintains all components of the District's Building Automation System (BAS). The BAS is a computerized, intelligent network of electronic devices designed to monitor and control the mechanical (heating, air conditioning and handling), electronics and interior and exterior lighting systems. The Building Automation System Analyst I operates and programs the BAS to optimize energy efficiency and effectiveness while providing scheduled services to District facilities. Assists the BAS Analyst II with commissioning new construction and modernization projects.

DISTINGUISHING CAREER FEATURES

The Building Automation System (BAS) Analyst, I is a technical position that combines programming and system operation with knowledge of electronic controls for heating, air conditioning, and lighting. The position is expected to apply a fundamental knowledge of the basic programming languages, data and telecommunications network systems, and equipment to oversee system operation for efficient heating, air conditioning, and lighting. Work requires continual interface with staff of all levels and departments. Work is usually performed in an office environment with occasional requirement to work in awkward positions around electronic equipment. Assignment to this position is based on need and requires compliance with the job qualifications.

ESSENTIAL DUTIES AND RESPONSIBILITIES

- Operates, controls, and programs computer-aided Building Automation System. Receives information for facility and classroom use and develops coded instruction that regulates energy consumption.
- Primary contact for maintaining building climate and insures proper space utilization consistent with energy conservation goals.
- Oversees, monitors, updates, and maintains evening, weekend, holiday, and shutdown programs and checklists for energy management. Analyzes energy performance from reports.
- Assists with the installation and/or repairs of Building Automation System. Maintains program documentation and wiring and installation diagrams.
- Monitors active energy consumption and conservation efforts using computer aided software that enables remote observation of energy usage. Looks for trends and unusual variations. Suggests modifications in energy consumption and/or schedule to optimize energy conservation.
- Prepares periodic performance reports that record building climate, energy consumption, alarms, etc. Analyzes and interprets building climate trends and energy consumption trends compared to

the nature/time of facility use. Advises administrators and maintenance staff on conservation methods.

- Oversees and may write program utility blocks in global control modules to control application-specific devices. Participates in BAS software, hardware, and equipment upgrades.
- Coordinates repairs to electronic measuring and reading instruments, relays, switches, and other components relating to BAS, with skilled trades personnel. Confers with heating and air conditioning staff on repairs, upgrades, and conservation.
- Monitors state and national energy policy trends to keep current on energy management trends.
- Conducts periodic “walk-through” audits of district facilities to insure operating efficiency, optimum educational environment, and compliance with the District’s energy policy.
- Assists the BAS Analyst I with commissioning new construction and modernization projects.
- Performs and monitors diagnostic tests that include functional performance tests, contractor start-up tests, acoustical measurements, air and water balancing on installed building equipment.
- Assists with data enter into Energy Cost Avoidance Program (ECAP).
- Performs other duties as assigned that support the overall objective of the position.

QUALIFICATIONS

Knowledge and Skills: The position requires in-depth knowledge of Building Automation concepts that includes optimizing usage for facility characteristics and alternative resources. Requires working knowledge of electronics, microprocessors, and digital and pneumatic controls. Requires a working knowledge of construction, carpentry, electrical, and plumbing concepts, practices, and techniques. Requires a working knowledge of the principles, practices, methods, techniques, materials, tools, equipment, layouts and set-ups used in HVAC systems and boiler operation. Requires knowledge of pertinent Federal, State, and local programs, grants, laws, codes and regulations in the area of energy management. Must be familiar with ANSI S12.60 Acoustical Performance Criteria, Design Requirements, and Guidelines for Schools. Requires sufficient math skills to record and compute detailed algebraic calculations and measurements. Requires well-developed English language and writing skills to prepare correspondence suitable for internal distribution, reports, instructions, and technical documentation. Requires well-developed human relations skills to deliver formal presentations, consult with administrators and contractors, resolve problems, and train service-level staff to maintain systems.

Abilities: Requires the ability to perform all of the essential functions with minimal supervision. Requires the ability to plan, schedule and direct activities of an integrated program and the work of others who maintain systems. Requires the ability and initiative to independently develop methods and techniques in the interest of best practice. Must be able to understand and follow oral and written instructions, maintain routine records and interpret plans and specifications found in area of specialization. Must be able to obtain cooperation of and maintain harmonious relations with the employees in other departments contacted during routine performance of duties.

Physical Abilities: Incumbent must be able to maintain cardiopulmonary fitness, function indoors in a shop environment and/or outdoors in the field engaged in work of primarily an active nature. Requires sufficient ambulatory ability to walk and carry tools and apparatus for 100 yards. Sufficient strength and agility to lift, load, and move heavy weight materials up to 25 pounds on a frequent basis and 75 pounds on an intermittent basis. Requires the ability to bend, stoop, and work in awkward positions. Requires

visual acuity to read and observe diagrams, manuals, work conditions, and recognize color-coded wires and connections. Requires auditory ability to carry on conversations in person, extend voice to large audiences.

Education and Experience: The position typically requires a Bachelor's degree in a technical discipline such as engineering, math, or business and two years of experience in energy management. May accept an Associate's Degree in Energy Management, Industrial Technology, related field or completion of a formal apprenticeship in a specialized trade (HVAC Service/Controls, Industrial Electrical or Energy Management controls) and six years of experience installing, maintaining energy systems or equivalent.

Licenses and Certificates: Requires a valid California Driver's License.

Working Conditions: Work is performed indoors where some safety considerations exist from proximity to work being performed of an electrical or mechanical nature.