



## Career Service Authority

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# Materials Laboratory Administrator

### GENERAL STATEMENT OF CLASS DUTIES

Performs supervisory duties over Materials Testers and manages the Materials Testing Laboratory which includes contract administration, ensuring proper testing procedures, and compliance with applicable standards and specifications.

### DISTINGUISHING CHARACTERISTICS

This class manages the Materials Testing Laboratory. This class is distinguished from the Materials Tester class that performs full performance work conducting quality control material testing and analysis of soil, asphalt, aggregate, and concrete in a laboratory and at various job sites to ensure compliance with construction specifications. The Materials Laboratory Supervisor is also distinguished from the Engineer/Architect Supervisor class that performs professional and supervisory work over professional, licensed engineers and architects, develops, implements, and evaluates engineering plans, work processes, systems, and procedures to achieve annual goals and objectives, and makes budgetary and resource allocation decisions.

#### ***Guidelines, Difficulty and Decision Making Level:***

Guidelines are in the form of stated objectives for the section, unit, function, or project.

Work assignment is generally unstructured and employee is responsible for assigning and supervising a variety of functions to achieve the objectives of the section, unit, or project. Duties performed involve weighing and evaluating factors requiring judgment, analytical ability, and problem solving.

Employee is responsible for simultaneous coordination and supervision of several functions, programs, or projects in various stages of completion.

#### ***Level of Supervision Received and Quality Review:***

Under administrative supervision, the employee has personal accountability for carrying out an assigned function, program, or project within the scope of established guidelines and objectives and is expected to resolve problems that arise in the normal course of the work. Completed work is generally reviewed for soundness of judgment, conclusion, adequacy, and conformance to policy.

#### ***Interpersonal Communications and Purpose:***

Contacts are of a non-prescribed nature involving the negotiation and resolution of problems and where exceptional degrees of discretion, judgment, and specialized knowledge are required in carrying out the programs and policies of an organization.

***Level of Supervision Exercised:***

Supervises Materials Testers and may supervise other paraprofessional employees.

**ESSENTIAL DUTIES**

Manages the Materials Testing Laboratory including providing technical training and feedback, preparing the work plan for asphalt testing, calibrating equipment, and ensuring field and laboratory testing for construction projects is performed in adherence to city standards and specifications.

Administers contracts for the materials need in the laboratory such as aggregate, cold mix, snow removal materials, and other laboratory equipment and materials and monitors and maintains the quality and quantity of purchased materials.

Conducts geotechnical testing and traffic count data analysis to produce pavement designs for engineering estimates on job costs for capital projects.

Acts as the Radiation Safety Officer for the Materials Testing Laboratory, establishes policies and procedures to ensure state and federal regulations are followed, ensures proper records are kept, monitors employee radiation levels, and oversee proper use, storage, and transportation of radioactive materials.

Acts as a snow manager for Street Maintenance including supervising staff, prioritizing snow routes, deploying personnel and equipment, following up on public and police complaints, and ensuring work is completed.

Develops or modifies work plans, methods, and procedures and determines work priorities.

Assigns and distributes work, reviews work for accuracy and completeness, and returns assignments with recommendations for proper completion.

Resolves problems encountered during daily operations and determines standards for problem resolution.

Develops the performance enhancement plan, documents performance, provides performance feedback, and formally evaluates the work of employees.

Responds to formal and informal employee grievances and prepares written response.

Documents causes for disciplinary action and initiates letters of reprimand and formal recommendations for disciplinary action.

Provides work instruction and assists employees with difficult and/or unusual assignments.

Performs other duties as assigned.

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Any one position may not include all of the duties listed. However, the allocation of positions will be determined by the amount of time spent in performing the essential duties listed above.

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## MINIMUM QUALIFICATIONS

### ***Competencies, Knowledge, & Skills:***

**Materials Testing** – Knowledge of the concepts, principles, theories, and methods related to the composition, structures, and properties of materials, their use, behavior, and performance under environmental influences, and the identification, processing, and manufacture of optimal materials for various applications.

**Technical Competence** – Uses knowledge that is acquired through formal training or extensive on-the-job experience to perform one's job, work with, understands, and evaluates technical information related to the job, and advises others on technical issues.

**Technology Application** – Uses machines, tools, instruments, and/or equipment effectively and uses computer applications to analyze and communicate information in the appropriate format.

**Mathematical Reasoning** – Solves practical problems by choosing appropriately from a variety of mathematical and statistical techniques.

**Interpretation** - Skill in independently adapting, interpreting, and applying written guidelines, precedents, and standardized work practices to a variety of unprecedented or problematic situations.

**Integrity/Honesty** - Contributes to maintaining the integrity of the organization, displays high standards of ethical conduct, understands the impact of violating these standards on an organization, self, and others, and is trustworthy.

**Reading** - Understands and interprets written material including technical material, rules, regulations, instructions, reports, charts, graphs, or tables and applies what is learned from written material to specific situations.

**Writing** - Recognizes and uses correct English grammar, punctuation, and spelling, communicates information in a succinct and organized manner, and produces written information which may include technical material that is appropriate for the intended audience.

**Interpersonal Skills** - Shows understanding, courtesy, tact, empathy, and concern, develops and maintains relationships, may deal with people who are difficult, hostile, and/or distressed, relates well to people from varied backgrounds and situations, and is sensitive to individual differences.

**Oral Communication** - Expresses information to individuals or groups effectively taking into account the audience and nature of the information, makes clear and convincing oral presentations, listens to others, attends to nonverbal cues, and responds appropriately.

**Problem Solving** - Identifies problems, determines accuracy and relevance information, and uses sound judgment to generate and evaluate alternatives and to make recommendations.

**Decision Making** - Makes sound, well-informed, and objective decisions, perceives the impact and implications of decisions, commits to action even in uncertain situations to accomplish program goals, and causes change.

**Teamwork** - Encourages and facilitates cooperation, pride, trust, and group identity, fosters commitment and team spirit, and works with others to achieve goals.

**Diversity** – Is sensitive to cultural diversity, race, gender, and other individual differences in the workforce.

**Customer Service** - Works with customers to assess needs, provide assistance, resolve problems, and satisfy expectations, knows products and services, and is committed to providing quality products and services.

**Flexibility**- Is open to change and new information, adapts behavior or work methods in response to new information, changing conditions, or unexpected obstacles, and deals effectively with ambiguity.

**Teaching Others** - Helps others learn through formal or informal methods, identifies training needs, provides constructive feedback, coaches others on how to perform tasks, and acts as a mentor.

**Conflict Management** - Manages and resolves conflicts, grievances, confrontations, or disagreements in a constructive manner to minimize negative personal impact.

**Attention of Detail** – Is thorough when performing work and conscientious about attending to detail.

**Memory** – Recalls information that has been presented previously.

**Information Management** – Identifies a need for and knows where or how to gather information and organizes and maintains information or information management systems.

Knowledge of supervisory theories and methods sufficient to be able to perform a variety of supervisory functions.

**Physical Demands** (Physical Demands are a general guide and specific positions will vary based on working conditions, locations, and agency/department needs):

Standing: remaining on one's feet in an upright position.

Walking: moving about on foot.

Carrying: transporting an object, usually by hand, arm, or shoulder.

Pushing: exerting force upon an object so that the object is away.

Pulling: exerting force on an object so that it is moving to the person.

Balancing: maintaining body equilibrium to prevent falling over.

Stooping: bending the body by bending spine at the waist.

Kneeling: bending legs to come to rest on one or both knees.

Reaching: extending the hand(s) and arm(s) in any direction.

Handling: seizing, holding, grasping, or otherwise working with hands.

Fingering: picking, pinching, or otherwise working with fingers.

Feeling: perceiving attributes of objects by means of skin receptors.

Talking: expressing or exchanging ideas by means of spoken words.

Hearing: perceiving the nature of sounds by the ear.

Repetitive motions: Making frequent movements with a part of the body.

Eye/hand/foot coordination: performing work through using two or more.

Lifting: raising or lowering an object 25 – 50 pounds.

Far acuity: ability to see clearly at 20 feet or more.

Near acuity: ability to see clearly at 20 inches or less.

Depth Perception: ability to judge distance and space relationships.  
Field of Vision: ability to see peripherally.  
Accommodation: ability to adjust vision to bring objects into focus.  
Color Vision: ability to distinguish and identify different colors.

***Working Environment:***

Extreme Heat: temperature hot enough to cause marked bodily discomfort  
Temperature Changes: variations in temperature from hot to cold.  
Wet: frequent contact with water or other liquid.  
Noise: sufficient noise to cause distraction or possible hearing loss.  
Atmospheric Conditions: conditions that affect the skin or respiratory system.  
Exposed to hazards from electro/mechanical/power equipment.  
Working with and possible exposure to radiation hazards.  
Subject to injury from moving parts of equipment.

***Education Requirement:***

Bachelor's Degree in engineering, science, or a related field.

***Experience Requirement:***

Three years of experience at the type and level of Materials Tester.

***Education/Experience Equivalency:***

Additional appropriate experience may be substituted for two years of the minimum education requirement.

***Licensure and/or Certification:***

Possession of a valid driver' license at the time of application.

Must maintain the City's license for Radioactive Materials issued by the State of Colorado Public Health and Safety Department.

**CLASS DETAIL**

***FLSA CODE:*** Exempt

***ESTABLISHED DATE:*** 04/04/2010

***ESTABLISHED BY:*** Patricia Anderson

***REVISED DATE:***

***REVISED BY:***

***CLASS HISTORY***

4/2010 - This is a new class. This class specification was created as part of the Technical Engineering Study (2010).