General Statement of Duties
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.

Distinguishing Characteristics
This class conducts quality control material testing and analysis. This class is distinguished from the Materials Laboratory Supervisor class that 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.

Level of Supervision Exercised
Performs no supervisory duties.

Essential Duties
Conducts field and laboratory performance tests to determine material properties such as content, gradations, and density.

Advises inspectors, contractors, or plant operator in aspects of choosing, approving, using, modifying, and quality verification of materials.

Prioritizes field job calls and lab work according to importance, time schedule, and distance.

Drills and cores materials for testing and analysis and coordinates and verifies locations of utilities.

Cleans, checks, and maintains proper calibration of equipment.

Calibrates nuclear density gauge and ensures proper storage and handling of radioactive material.

Maintains records of all testing and prepares reports.

By position, coordinates hauling of aggregates to stockpiles with the aggregate supplier to maintain sufficient quantities for plant operation, processes billing tickets of aggregate, and compiles aggregate haul records.

Performs other related duties as assigned or requested.

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.

Competencies
Applies Technology to Tasks - Selects and understands procedures, machines, or tools that will produce the desired results; identifies or solves problems in machines, computers, or other technologies as they are related to performing tasks.

Attention to Detail – Is thorough when performing work and conscientious about attending to detail.
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 of information; uses sound judgment to generate and evaluate alternatives, and to make recommendations.

Reasoning - Identifies rules, principles, or relationships that explain facts, data, or other information; analyzes information and makes correct inferences or draws accurate conclusions.

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

Knowledge & Skills

Knowledge of the concepts, principles, or theories of soil composition, formation, classification, mapping, testing and management including erosion, pollution, conservation, and watershed management.

Knowledge of the materials, methods, systems and the tools used to construct objects, structures, and buildings.

Education Requirement

Graduation from high school or the possession of a GED, HiSET or TASC Certificate.

Experience Requirement

Two (2) years of experience in sub professional engineering including one year of experience in construction working with concrete, asphalt, soil or related materials.

Education & Experience Equivalency

Additional appropriate education may be substituted for the minimum experience requirements.

Licensure & Certification

By position, requires a valid Driver’s License at the time of application.

Licenses and certifications must be kept current as a condition of employment.

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.
Potential exposure to hazards from electro/mechanical/power equipment.
Working with and possible Potential exposure to radiation hazards.
Subject to injury from moving parts of equipment.

Level of Physical Demand

3-Medium (20-50 lbs.)
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 objects weighing no more than 50 pounds, from one level to another.
- **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.

**Background Check Requirement**

- Criminal Check
- Employment Verification

**Assessment Requirement**

None

**Probation Period**

Six (6) months.

**Class Detail**

- **Pay Grade**: E-619
- **FLSA Code**: N
- **Established Date**: 9/21/2018
- **Established By**: LS
- **Revised Date**:  
- **Revised By**:  
- **Class History**:  

City and County of Denver