

CLASS SPECIFICATION
Materials Testing Technician I

FLSA Status: Covered
Union Representation: Professional and Technical Employees (PTE)

GENERAL PURPOSE

Under general supervision, conducts routine materials testing assignments, including testing asphalt, concrete, aggregate, soil and other common construction materials; operates, calibrates and maintains testing tools and equipment; maintains the testing laboratory and equipment in a clean and orderly fashion; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Materials Testing Technician I is the entry level in the Materials Testing Technician series. Materials Testing Technicians I are responsible for performing routine testing, logging, storing and disposing of samples of asphalt, concrete, aggregate and soils. Incumbents also operate, calibrate and perform maintenance and upkeep of materials testing laboratory equipment to support laboratory functions and operations.

Materials Testing Technician I is distinguished from Materials Testing Technician II in that incumbents in the latter class perform more complex and difficult materials testing assignments, requiring a more thorough understanding of materials testing techniques, processes and procedures. Materials Testing Technicians are distinguished from other related engineering technician classes by the regular and continuous assignment of material testing related duties.

ESSENTIAL DUTIES AND RESPONSIBILITIES

Any one position in this class may not perform all the duties listed below, nor do the listed examples of duties include all similar and related duties that may be assigned to this class.

1. Conducts routine testing of materials, including concrete, aggregate and soils; tests concrete cylinders for compressive strength; cuts and caps miscellaneous masonry units to test for compressive strength; tests soils and aggregate for compaction, sieve analysis, gradation and sand equivalents; performs accurate calculations for soil, concrete and aggregate testing.
2. Stores and logs samples to be tested; retrieves cylinders from field projects; disposes of tested samples.
3. Maintains, repairs and calibrates testing equipment.
4. Maintains the testing laboratory and equipment in a clean and orderly fashion; reorganizes laboratory setup as needed to facilitate improved performance and in-house results; changes charts and filters for the concrete cure room; ensures the concrete capping work station is operational.

OTHER DUTIES

1. Assists other department staff on field projects, including coring concrete and asphalt and conducting nuclear-field density tests.

MINIMUM QUALIFICATIONS

Knowledge of:

1. Terminology, methods, practices, techniques and nomenclature used in materials testing.
2. Current materials testing procedures, including American Society of Testing Materials (ASTM) and American Association of State Highway and Transportation Officials (AASHTO) procedures.
3. Operation and use of materials testing equipment, including Oregon Department of Transportation (ODOT) test methods and procedures.
4. Algebra, geometry and trigonometry as applied to testing formulas.
5. City operating policies and departmental work procedures and quality standards.
6. Standard procedures for storing and disposing of samples.

Ability to:

1. Conduct a variety of routine materials testing assignments, including testing concrete, soils and aggregate for various physical properties.
2. Precisely follow written and oral instructions.
3. Perform detailed work thoroughly, neatly, accurately and efficiently.
4. Properly calibrate, use and maintain materials testing equipment.
5. Read and interpret field and laboratory notes.
6. Perform basic materials testing computations.
7. Establish and maintain effective working relationships between bureau management, staff, contractors and others encountered in the course of work.

Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from high school, trade school or vocational school, or G.E.D. equivalent; supplemented by courses in materials testing technology; or an equivalent combination of training and experience. Experience in a public agency is preferred.

Licenses; Certificates; Special Requirements:

A valid state driver's license may be required for certain assignments.

ODOT Aggregate and Embankment Technician Certification

ACI Lab Technician I Certification

PHYSICAL AND MENTAL DEMANDS

Persons with disabilities may be able to perform the essential duties of this class with reasonable accommodation. Reasonable accommodation will be evaluated on an individual basis and depend, in part, on the specific requirements for the job, the limitations related to disability and the ability of the hiring bureau to accommodate the limitation.

Class History:

Adopted: 07-01-01 New class Materials Testing Technician I (6071) created as part of the COPPEA Class/Comp Study.

Revised: 08-01-06 Spec history revised to reflect pre-2001 COPPEA Study history. Spec formatting modified.

Revised: 08-07-06 Revised FLSA status from “Non-exempt” to “Covered.”

June 2009 - Change Job Class number from 6071 to 30000344, due to system change.

July 2017 – Updated union name from COPPEA to PTE