City of Portland Job Code: 30000346

# CLASS SPECIFICATION Materials Testing Technician III

FLSA Status: Covered

Union Representation: Professional and Technical Employees (PTE)

### GENERAL PURPOSE

Under general direction, performs advanced specialized materials testing assignments; coordinates large, multiple and/or complex materials testing projects including developing time lines, schedules and budgets; provides lead direction to other Materials Testing Technicians; and performs related duties as assigned.

## DISTINGUISHING CHARACTERISTICS

Materials Testing Technicians III coordinate large, complex materials testing assignments and projects and perform advanced specialized testing and analysis of samples of asphalt, concrete, aggregate, soils and various other construction materials. Incumbents are responsible for the maintenance and upkeep of materials testing laboratory equipment and provide lead work direction and guidance to other materials testing staff.

Materials Testing Technician III is distinguished from Materials Testing Technician Supervisors in that incumbents in the latter class are responsible for supervising professional and technical staff in all aspects of the work environment.

## 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. Plans, organizes, assigns and directs the work of a materials testing work group; develops and implements standards, policies and procedures; monitors and oversees; prioritizes workload, plans and schedules projects and processes, checks work and manages work flow.
- 2. Serves as liaison with other work groups, bureaus and organizations to share technical information and provide project coordination.
- 3. Researches and selects or recommends field and laboratory testing equipment and other tools necessary to provide high quality, cost effective construction materials testing services; schedules and/or performs equipment calibration.
- 4. Provides technical support to other Materials Testing Technicians.
- 5. Provides training and ongoing education to bureau and work group staff in materials testing procedures, standards, and processes.

- 6. Coordinates and participates in activities to maintain the laboratory's accreditation with American Association of State Highway and Transportation Officials (AASHTO), Oregon Department of Transportation (ODOT), and Office of Planning and Development Review (OPDR); performs quality assurance and quality control tests.
- 7. Performs advanced, specialized materials testing procedures.
- 8. Maintains and updates the hazardous communication program; ensures proper disposal of hazardous wastes.
- 9. Serves as Radiation Safety Officer (RSO).
- 10. Writes final reports summarizing materials testing results.
- 11. Represents the Materials Testing Laboratory at pre-construction and construction meetings with respect to materials testing for the project.

## MINIMUM QUALIFICATIONS

## **Knowledge of:**

- 1. Terminology, methods, practices, techniques and nomenclature used in materials testing in various situations.
- 2. Current materials testing procedures, standards and requirements, including American Society of Testing Materials (ASTM), ODOT, UBC and AASHTO procedures.
- 3. Statistical and research methods related to materials testing.
- 4. Principles and techniques used in the management and direction of work, including goals and objectives development and work planning and organization.
- 5. Principles and practices of project management and evaluation.
- 6. Operation and use of materials testing equipment, including ASTM, UBC, AASHTO and ODOT test methods, standards and procedures.
- 7. Construction and manufacturing methods and specifications related to materials tested.
- 8. Algebra, geometry and trigonometry as applied to testing formulas.
- 9. City operating policies and departmental work procedures and quality standards.

## Ability to:

1. Review, organize and direct the work of work group; motivate assigned staff and provide for their training and professional development.

- 2. Perform difficult technical research and analysis of complex materials testing related problems, evaluating alternatives and recommending or adopting effective courses of action.
- 3. Independently perform advanced materials testing assignments with initiative and creativity.
- 4. Use computer applications for developing spreadsheets and databases to organize, interpret and present data.
- 5. Clearly present technical information in oral, written, graphic or other forms.
- 6. Establish and maintain effective working relationships with bureau management and staff, contractors, representatives of other governmental testing agencies, 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; and four years of progressively responsible material testing experience; 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.

Hazardous Waste Operator certification (40-hour HAZWOPER)

ODOT Asphalt Tech, Density Tech, Embankment Tech, and Aggregate Tech certifications.

Nuclear densometer operator safety training certification

ACI Concrete Field Testing Technician – Grade 1 certification

ACI Concrete Laboratory Testing Technician – Grade 1 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: 08-30-96 Engineering Technician III (3109) – Materials Testing specialty created. Revised: 07-01-01 Spec revised as part of the COPPEA classification and compensation study.

Materials Testing Technician III (6073) class created from the following

COPPEA classes:

3109 Technician III (Materials Testing specialty)

Revised: 08-01-06 Spec history updated 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 6073 to 30000346, due to system change.

July 2017 – Updated union name from COPPEA to PTE