CAREER OPPORTUNITIES FOR ENGINEERING ASSOCIATES

This information is being given to you to describe potential promotional opportunities as an Engineering Associate. The career ladders that Engineering Associates most commonly enter into are diagrammed below. The duties and requirement for the first promotional levels of these career ladders are described on the following pages. We encourage you to examine the options open to you and to prepare yourself for the promotions for which you qualify.

COMMON CAREER LADDERS FOR ENGINEERING ASSOCIATES

The chart below shows the normal career paths of Engineering Associates. With specific types of experience, however, promotion or lateral movement between these lines is also possible.
Each of the twelve Engineering Associate classes (as shown on page 1) has a similar paygrade structure as shown below. To advance within a class above the Engineering Associate II level you must compete through a department’s paygrade advancement procedure. To advance to classes above the Engineering Associate level will require competing on a civil service examination and certification process.

**Engineering Associate I** is the normal entry level to the class. Employees at this level usually have little, if any, experience or special training. They initially perform the less complex professional engineering work under close supervision while learning and assisting in a variety of routine duties. As employees become more experienced, they may work independently and may be responsible for one or more large projects. Positions at this level are designated as three-year temporary training positions under Civil Service Rule 5.30. Employees with two years of full-time City experience as an Engineering Associate I and an Engineer-in-Training (EIT) Certificate would automatically move to the Engineering Associate II level.

**Engineering Associate II** performs journey level engineering work requiring a broad knowledge of engineering skills. Individuals at this level usually work independently, receiving instructions in general terms, and may be responsible for one or more major City projects having a wide impact and significant cost. Employees may serve as a lead over a small group of lower level employees.

**Engineering Associate III** level employees may supervise, or may serve as a lead over a small group of employees, or as a project manager or project engineer involved in work that is technically complex and requires considerable experience, skill and engineering knowledge. Two years of full-time paid professional experience at the level of Engineering Associate II and registration as a professional engineer with the California State Board of Registration for Professional Engineers is required for advancement to this level.

**Engineering Associate IV** employees are non-supervisory technical experts, who shall maintain the skills and expertise necessary to remain at the higher paygrade level. They may conduct extensive research into new technical developments and evaluate their suitability for City use, may prepare standards for technical design, may develop and conduct training for other employees about new procedures and techniques, or may act as an internal consultant to other employees or on very difficult issues. These positions are designed by department management, according to the department’s needs. Some positions require registration as a professional engineer with the California State Board of Registration for Professional Engineers, as determined by department management.

**DUTIES AND REQUIREMENTS OF FIRST PROMOTIONAL LEVEL**

**Building Civil Engineer**

Performs responsible civil engineering work in checking complex building plans and making special engineering studies; plans, organizes and directs the work of an engineering group engaged in checking plans, designs, and specifications for a variety of buildings for compliance with the Los Angeles City Building, Planning and Zoning Codes, and the State Building Codes for energy conservation and building access by the physically disabled;
applies sound supervisory principles and techniques in building and maintaining an effective work force.

Requirements

Two years of full-time paid professional engineering experience at the level of Structural Engineering Associate II.

**Building Electrical Engineer**

Supervises the preparation of plans, specifications and drawings for facilities high and low voltage electrical systems such as lighting, communication and control systems; supervises the checking of such plans for feasibility and conformance to good engineering practices and code requirements; may supervise a unit engaged in electrical testing of electrical appliances and equipment; or may supervise a section engaged in facility construction.

Requirements

Two years of full-time paid professional engineering experience at the level of Electrical Engineering Associate II.

**Building Mechanical Engineer**

Assigns, reviews and evaluates the work of technical, professional and clerical employees engaged in the design and review of building mechanical systems, mechanical research, plan checking and/or inspection related to building mechanical equipment and materials testing; applies management tools to control the schedule and cost of tasks undertaken, may design training material related to building mechanical systems; applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfills equal employment opportunity responsibilities.

Requirements

Two years of full-time paid professional engineering experience at the level of Mechanical Engineering Associate II.

**Civil Engineer**

Performs professional civil engineering work in making engineering studies and assigning, reviewing and evaluating the work of professional and technical employees engaged in the preparation of designs, plans, specifications, estimates, environmental studies, construction financing studies, budgeting, assessment reports, scheduling and reports on major engineering projects or in directing field engineering activities in connection with construction, contract administration, maintenance, inspection and operation of a wide variety of engineering projects.
Requirements

Two years of full-time paid professional engineering experience at the level of Civil Engineering Associate II.

**Communications Engineer**

Assigns, reviews and evaluates the work of professional engineers and technical employees engaged in the preparation of plans, designs, specifications, estimates, cost and service analyses and reports associated with the planning, design, construction, installation, operation and maintenance of municipal communications systems or Local Area Network (LAN)/Wide Area Network (WAN) communications systems; may also direct and coordinate the municipal communications systems or the LAN/WAN communications systems, construction, installation, operation and maintenance activities; applies sound supervisory principles and techniques in building and maintaining an effective work force, and fulfills equal employment opportunity responsibilities.

Requirements

Two years of full-time paid professional engineering experience at the level of Communications Engineering Associate II.

**Control Systems Engineer**

Performs responsible professional engineering work in supervising engineering employees engaged in the construction, maintenance and evaluation of control systems and process instrumentation; making control system engineering studies and preparing or supervising the preparation of plans, specifications, estimates, designs and reports in connection with a variety of control system engineering and process instrumentation projects; applies sound supervisory principles and techniques in building and maintaining an effective work force, and fulfills equal employment opportunity responsibilities.

Requirements

Two years of full-time paid professional engineering experience at the level of Control Systems Engineering Associate II.

**Electrical Engineer**

Performs responsible engineering work in preparing or planning, organizing and directing the work of employees engaged in the preparation of plans, designs, specifications, engineering economic cost and operational analysis studies, estimates, power supply contracts and reports, directs activities associated with the planning, construction, testing, maintenance and operation of electric facilities, applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfill equal employment opportunity responsibilities.
**Requirements**

Two years of full-time paid professional engineering experience at the level of Electrical Engineering Associate II.

**Fire Protection Engineer**

Performs professional engineering work in the application of engineering principles to problems of safeguarding life and property against loss from fire, explosions and related hazards; conducts fire and life safety reviews of building plans and field inspection for new construction projects; may supervise Fire Protection Engineering Associates and Fire Inspectors; and does related work.

**Requirements**

Two years of full-time paid professional engineering experience at the level of Fire Protection Engineering Associate II.

**Geotechnical Engineer**

Directs and assists a geotechnical engineering unit; directs the preparation of and reviews comprehensive and complex geotechnical reports submitted by private consultants; may coordinate the preparation and review of geotechnical and geological reports with Engineering Geologists; performs geotechnical investigations; advises management and other public officials on problem projects; applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfills equal employment opportunity responsibilities.

**Requirements**

Four years of full-time paid professional engineering experience working under the direct supervision of a Geotechnical Engineer.

**Materials Testing Engineers**

Assigns, reviews and evaluates the work of professional engineers and other employees engaged in making chemical analyses and physical tests of supplies, materials and equipment; applies sound supervisory principles and techniques in building and maintaining an effective work force.

**Requirements**

Two years of full-time paid professional engineering experience at the level of Materials Testing Engineering Associate II.
**Mechanical Engineer**

Performs responsible mechanical engineering work in assigning, reviewing and evaluating the work of professional and technical employees engaged in the preparation of plans, designs, specifications, agreements or contracts, engineering economic and cost analysis studies, estimates and reports; directs the construction, installation, inspection, testing, operation, repair and maintenance of a wide variety of mechanical facilities and appurtenant equipment; reviews and makes recommendations regarding new technology; identifies and resolves environmental, regulatory and legislative issues associated with the design, construction and operation of facilities, systems and equipment; may supervise the development and implementation of administrative systems and studies; supervises engineers performing technical and administrative work on engineering projects; and applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfill equal employment opportunity responsibilities.

**Requirements**

Two years of full-time paid professional engineering experience at the level of Mechanical Engineering Associate II.

**Sanitary Engineer**

Performs responsible professional engineering work supervising employees involved in the planning, design, construction, maintenance and operation of sanitary and environmental engineering facilities; preparing and evaluating Request for Qualification and Requests for Proposal for a variety of sanitary engineering studies; directing various sanitary engineering studies, tests and research activities; evaluating performance of existing sanitary engineering facilities and making recommendations for improvement; directing a variety of sold waste management programs including sludge and liquid waste management; and applying sound supervisory principles and techniques in building and maintaining an effective work force and fulfill equal employment opportunity responsibilities.

**Requirements**

Two years of full-time paid professional engineering experience at the level of Sanitary Engineering Associate II.

**Street Lighting Engineer**

Plans, organizes and directs the work of engineering and technical employees in a major division responsible for the preparation of reports, plans, cost estimates and the performance testing related to a variety of municipal street lighting projects; may represent the Bureau before the City Council, various City Commissions and community groups; applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfill equal employment opportunity responsibilities.
Requirements

Two years of full-time paid professional engineering experience at the level of Street Lighting Engineering Associate II.

**Structural Engineer**

Performs responsible structural engineering work in supervising an engineering group engaged in checking or preparing plans, designs and specifications for a variety of structures; makes special structural engineering studies; applies sound supervisory principles and techniques in building and maintaining an effective work force and fulfill equal employment opportunity responsibilities.

Requirements

Authority to use the title Structural Engineer, issued by the California State Board of Registration for Professional Engineers, is required at time of filing.

**Transportation Engineer**

Performs responsible transportation engineering work in making engineering studies and preparing or supervising the preparation of designs, plans, specifications, estimates, and reports; in supervising the collection of field data in connection with a variety of transportation, traffic safety, and parking projects; in communicating effectively with the public, elected officials, and other agencies; applies sound supervisory principles and techniques in building and maintaining an effective work force; and fulfills equal employment opportunity responsibilities.

Requirements

Two years of full-time paid professional transportation engineering experience at the level of Transportation Engineering Associate II.

**Waterworks Engineer**

Plans, organizes and directs the work of engineers and other personnel engaged in planning, constructing, maintaining and operating waterworks facilities and structures; prepares specifications, designs, plans, estimates, environmental studies, reports and conducts hydrologic surveys; applies sound supervisory principles and techniques in building and maintaining an effective work force; and fulfills equal employment opportunity responsibilities.

Requirements

Two years of full-time paid professional engineering experience at the level of Civil Engineering Associate II.
PREPARING YOURSELF FOR PROMOTION

1. Broaden your work experience by taking advantage of job rotation and transfer opportunities. Take advantage of on-the-job training opportunities relating to your work.

2. Take advantage of formal education opportunities relating to your work.

3. Learn and stay abreast of laws, procedures, policies and practices relating to your career ladder.

4. Carefully review examination bulletins and class specifications for promotional classes to determine the kinds of skills, knowledges and abilities you need to develop for promotion.

5. Request for Notification cards may be completed in Room 100 of the Personnel Building, (213) 847-9240, to notify you by mail when a specific examination is open for filing. Familiarize yourself with the areas in your work location where weekly job bulletins are posted.

6. Employees may obtain career counseling from the Personnel Department’s Employee Development Section, (213) 847-9800, in Room 380, Personnel Building.

(Rev. 7/06)
(D-3:Career Ladders A-D)