

CLASS SPECIFICATION
Senior Engineering Technician

GENERAL PURPOSE

Under general supervision, performs lead supervision and participates in specialized engineering support and technical assignments applying complex technical and scientific knowledge in the areas of public works and traffic engineering, construction and design; performs complex cost estimates; examines plans and specifications from other departments, agencies and consultants; performs drafting, technical writing, research and field inspections; and performs related duties as assigned.

DISTINGUISHING CHARACTERISTICS

Senior Engineering Technician is the lead-level class in the Engineering Technician class series. Incumbents are responsible for performing difficult engineering, construction or design tasks using independent judgment and specialized technical and scientific knowledge. Incumbents produce a variety of complex technical materials, documents, plans, drawings, specifications, cost estimates and project schedules and ensure quality control and compliance with applicable regulations, standards and policies of a variety of public works and traffic projects and processes.

Senior Engineering Technician is distinguished from Engineering Technician II in that incumbents in the former class have lead supervisory responsibilities over Engineering Technicians.

ESSENTIAL DUTIES AND RESPONSIBILITIES

The duties listed below are intended only as illustrations of the various types of work that may be performed. The omission of specific statements of duties does not exclude them from the position if the work is similar, related or a logical assignment to this class.

1. Provides lead supervision and participates in administrative, logistical and technical support to project and construction management staff; assisting in the bidding process; participates in the selection and oversight of contractors for engineering and construction projects; reviews and checks complex contractor plans, specifications and estimates for accuracy, scope of work, completeness and compliance with federal, state and local requirements and constructability; provides recommendations for solutions to design errors and omissions; attends bid openings; conducts reference and background checks; prepares bid summaries; recommends award of contracts to contractors.
2. As the lead supervisor, coordinates projects by assigning, directing and coordinating discrete tasks and processes performed by contract, support or other technical staff; issues notices to proceed to contractors; chairs pre-construction meetings, reviews contractor schedules and drafts meeting minutes; reviews work products and construction submittals from contractors; evaluates and drafts change orders; prepares cost estimates; monitors and maintains records on the financial status and progress of work to ensure projects are completed on schedule and meet federal, state and local standards; provides regular progress reports to management; files notices of completion with County Recorder and releases retention payments to contractors; maintains project files and records.

3. Conducts on-site visits of work sites and collects field data; verifies conditions, takes measurements, notes potential or developing problems and makes recommendations for resolution; maintains project progress records.
4. Responds to customer and public inquiries and complaints; explains and interprets codes, policies, standards and procedures to contractors, engineers, architects, members of the public and other public or utility organization employees to resolve problems and ensure adherence to procedures; investigates, analyzes and prepares recommendations in response to public complaints and requests.
5. Drafts, maintains, updates and duplicates detailed maps, exhibits and plans using computer-aided methods; drafts a variety of correspondence, reports and exhibits.
6. Performs specialized data gathering and research; analyzes data and makes recommendations.

OTHER DUTIES

1. Performs other administrative and technical support functions in support of division operations; performs quantity takeoffs; drafts extract data forms for industrial relations reporting; assists with completion of as-built plans; assists with drafting grant applications; assists with budget presentations.
2. Attends a variety of meetings as required; prepares staff reports and makes presentations as required.
3. May provide assistance at the public counter and reviews permit applications to ensure compliance with current engineering practices and standards.
4. May periodically update the division's web page.
5. May coordinate City crossing guard functions; receives requests from school districts for crossing guard service and determines if requests are warranted; prepares and plans the annual crossing guard budget; works with the Crossing Guard Supervisor on day-to-day crossing guard operational issues.
6. May receive and evaluate applications from citizens and the City Council to evaluate existing street conditions for the installation of speed bumps on local residential streets.

QUALIFICATIONS

Knowledge of:

1. Engineering terminology, practices, procedures and principles.
2. Principles, standards and practices of engineering and construction project management.
3. Mathematics, algebra, geometry, trigonometry and statistics related to engineering work.
4. Federal, state and local laws and regulations pertaining to engineering and construction project areas.
5. Specialized data gathering and research techniques.
6. Standard office practices and procedures, including filing and recordkeeping.

7. Principles and techniques of the use and application of AutoCAD.

Ability to:

1. Manage various standard public works and traffic engineering projects.
2. Provide lead supervision to staff.
3. Directs the activities of staff and contract personnel involved in assigned projects.
4. Operate a computer and use a variety of programs and applications.
5. Utilize specialized engineering and drafting tools, materials and equipment.
6. Read and interpret various kinds of maps, engineering drawings, plans, blueprints and other technical materials and documents.
7. Communicate clearly and effectively, both orally and in writing.
8. Prepare clear, concise and comprehensive correspondence, reports and other written materials.
9. Establish and maintain effective working relationships with City management, staff, contractors, representative of other public and utility agencies, the public and others encountered in the course of work.

Education, Training and Experience:

A typical way of obtaining the knowledge, skills and abilities outlined above is graduation from a four-year college or university with a major in City engineering or a closely related field; or an equivalent combination of training and experience; and three years of advanced sub-professional field and office engineering experience including one year of experience comparable to an Engineering Technician II; or an equivalent combination of training and experience. Some supervisory experience is desirable.

Licenses; Certificates; Special Requirements:

A valid California driver's license and the ability to maintain insurability under the City's vehicle insurance policy.

PHYSICAL AND MENTAL DEMANDS

The physical and mental demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

Physical Demands

While performing the duties of this job, the employee is regularly required to use hands to finger, handle, feel or operate objects, tools, or controls and reach with hands and arms. The employee frequently is required to stand and talk or hear. The employee is frequently required to walk; sit; climb or balance; stoop, kneel, crouch, or crawl. The employee must frequently lift and/or move up to 50 pounds, and occasionally lift and/or move up to 100 pounds.

Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and the ability to adjust focus.

Mental Demands

While performing the duties of this class, employees are regularly required to use written and oral communication skills; read and interpret data, information and documents; analyze and solve problems; use math and mathematical reasoning; observe and interpret situations; learn and apply new information or new skills; work under deadlines with constant interruptions; interact with City management, staff, contractors, representative of other public and utility agencies, the public and others encountered in the course of work, some of whom may be dissatisfied or quarrelsome.

WORK ENVIRONMENT

The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this class. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.

The employee works under typical office conditions, and the noise level is usually quiet. The employee may regularly be required to work in outside conditions, exposed to wet and/or humid conditions, where the noise level may be loud.