

ASSOCIATE ENGINEERING SURVEYOR

Definition

Under direction of the City Engineer, to act as chief of surveying performing difficult survey tasks; directs survey work of in-house staff and consultants; works with survey instruments on construction and engineering surveys; reviews subdivision submittals; performs moderate to difficult engineering tasks for a variety of public works projects; and does related work as required.

Examples of Duties

Organizes project taskings; processes and reviews subdivision map submittals; prepares records of survey and corner records; prepares certificates of compliance; processes and prepares lot line adjustment documents; discusses work projects with supervisor; works independently; operates total station, GPS and level for a large variety of survey work; determines lines, corners, elevations, grades, curves, alignments, angles, positions and distances; keeps field notes of readings and observations; makes field sketches to record engineering data; sets and marks stakes for slopes, grades and other construction purposes; calculates cuts and fills; does computing and delineation involved in reducing field survey matters; drafts maps, grades, delineations and structures; plots road alignments showing profiles, contours and topographic features; maintains survey equipment; maintains office files and records; checks subdivision plans for mathematical and technical accuracy; resets lost or obliterated monuments; interprets construction plans, property deeds, and other related material; supervises, and trains members of a survey crew. In the absence of the City Engineer, signs and stamps surveying documents.

Prepares engineering calculations, designs, plans, specifications, quantity estimates and cost estimates for the construction of streets, sewers, storm drains and other structures. Most of this design work is to be accomplished with the help of such computer programs as "AutoCAD MAP". Acts as project engineer for designs done in-house and as project manager for consultant-designed projects; provides information on department operations to interested parties; aides in preparation of assessment districts; talks with citizens in the office, over the phone, and by computer with regard to City engineering work and permits; answers inquiries for information about sewers, storm drains, easement and right of way locations; assists citizens in making applications for special permits; reviews private development plans with respect to impact on City property and infrastructure; represents the City at meetings and conferences; makes

specialized studies and investigations for the department as necessary; may supervise subordinate technical personnel and survey team members; writes staff reports.

Employment Standards

Education and Experience

Any combination equivalent to graduation from ABET accredited college or university in civil engineering or geomatics (surveying), and three years of responsible experience in engineering survey work.

Knowledge and Abilities

Knowledge of: Engineering field survey principles and practices; knowledge of the proper use and adjustment of surveying instruments such as total station and level; knowledge of boundary control and legal principles; knowledge of coordinate systems and conversions between them; knowledge of photogrammetric principles; knowledge of the Land Surveyor's and the Map Acts; knowledge of mathematics as applied to surveys; knowledge of principles, practices and methods of civil engineering as applied to the planning, design and construction of streets buildings, storm drains, and sewer systems and other public works projects; knowledge of design principles, strength of materials, and stress analysis required in designing public works projects;;

Ability to: perform route surveys, slope staking, construction staking, prepare "cut sheets", topographic surveying and mapping, resolve boundary conflicts, and prepare legal descriptions; ability to make mathematical computations quickly and accurately; ability to read and interpret legal descriptions, maps, and construction drawings; ability to direct the work of subordinates; ability to prepare engineering field notes and sketches; ability to do drafting and use AutoCAD MAP; ability to prepare accurate plans, specifications, drawings, computations, cost estimates and engineering reports; ability to review the work of others either on staff or from consultant sources; ability to understand and carry out technical instructions; ability to use "Windows" based computers and common programs.

License and/or Certificates Required

Must possess a valid California Driver's License.

Possession of a California Land Surveyor's license is mandatory. Possession of an Engineer in Training certificate is highly desirable.