

CIVIL ENGINEERING ASSISTANT

DEFINITION

Under general direction, to perform a variety of advanced technical and paraprofessional office and field engineering work; to prepare plans, designs, and specifications for a variety of City projects; to review work prepared by outside consultants; to prepare engineering reports; and to do related work as required. Serves as Disaster Service Worker. FLSA Status: Non-exempt. Bargaining Group: Miscellaneous Unit.

DISTINGUISHING CHARACTERISTICS

This is the entry and first working level in the Civil Engineering Assistant/Associate class series. Civil Engineering Assistants perform many technical engineering support assignments in training and learning capacity. When an incumbent becomes familiar with the Engineering Division and demonstrates good sustained work performance, he/she may be promoted to the Civil Engineering Associate level.

REPORTS TO

Community Development Director or as assigned.

CLASSIFICATIONS SUPERVISED

This is not a supervisory class.

ESSENTIAL FUNCTIONS

Many of the assignments listed below are performed in training and learning capacity with the expectation that an incumbent will develop the capacity to perform the full scope of work with minimal guidance and supervision.

Assists with the preparation and evaluation of designs, surveys, estimates, studies, and preliminary and final plans and specifications for a variety of street, drainage system, water and sewer facilities, and related capital improvement projects; learns to perform a variety of project development and planning assignments; performs field reviews and surveys of various engineering projects; performs complex engineering calculations; may perform contract administration, construction inspection, and project administration; ensures that contractors meet proper standards, specification requirements, cost controls, and time requirements; may prepare contract change orders and process payments; performs drafting and design work on computer aided drafting software and other related computer design equipment; assists the public and contractors at the counter and provides information on engineering requirements and service area operations; informs the public of application and plan checking procedures, traffic flow, and related questions; performs inspections for public works improvements and other

public works structures and facilities; determines fees for public works, subdivision, and parcel map applications; learns to review applications and issue permits, checking and reviewing appropriate licenses and plans; assists with foundation and hydrology studies; receives public inquiries regarding City engineering standards; learns to research data and provide consultation to engineers and contractors; collects, organizes, summarizes, and analyzes a variety of technical engineering data; assists with grant proposals; under direction of the City Engineer, prepares legal descriptions related to City rights-of-way and easements; processes encroachment requests into City easements and rights-of-way; assists with engineering reviews of environmental impact reports; prepares preliminary reports for tentative subdivision map conditions; performs field surveys; uses a computer to reduce survey data; performs engineering calculations; develops data for the acquisition of rights-of-way; prepares engineering cost estimates; reviews laboratory reports and analyzes the quality and compliance of materials; assists with traffic studies; and develops and proposes solutions to engineering problems.

TYPICAL PHYSICAL REQUIREMENTS

Sit for extended periods; frequently stand and walk; normal manual dexterity and eye-hand coordination; lift and move objects weighing up to 25 lbs.; corrected hearing and vision to normal range; verbal communication; use of engineering and office equipment including computer, telephone, calculator, copiers, and FAX.

TYPICAL WORKING CONDITIONS

Work is performed in office and outside environments; some exposure to weather and temperature variances; exposure to dust; continuous contact with other staff and the public.

MINIMUM QUALIFICATIONS

Knowledge of:

- Basic knowledge of the theory, principles, and practices of civil engineering and their application to the design, preparation of engineering specifications, and construction.
- Nomenclature, symbols, methods, practices, techniques, and instruments used in engineering and mapping.
- Basic knowledge of surveying equipment, principles, problems, techniques, and practices.
- Construction methods, materials, and equipment.
- Proper inspection methods and procedures.
- Contract development and administration.
- Uses of computers and computer applications in technical engineering support work.

Ability to:

- Learn laws, rules, regulations, and policies affecting City public works engineering.
- Learn to perform complex paraprofessional engineering work in the preparation of plans, designs, and specifications for public works and City facility development, construction, and maintenance.

- Assist with planning, organizing, and completing a variety of engineering projects.
- Prepare a variety of engineering reports.
- Prepare maps, plans, and drawings neatly and accurately.
- Assist with engineering reviews of designs, plans, and specifications prepared by others.
- Gather, organize, analyze, and present a variety of technical engineering and statistical data.
- Use a computer and appropriate software in technical engineering support and administrative work.
- Establish and maintain cooperative working relationships.

Training and Experience:

- Two (2) years of increasingly responsible technical engineering support experience in public works engineering, survey, engineering drafting, or a related field is preferred.
- Engineering In Training (EIT) certification is desirable.

SPECIAL REQUIREMENTS

- Possession of, or ability to obtain, appropriate certifications and licenses as designated by the City of Atwater.

Education:

- Graduation from an accredited community or junior college with an AA degree in civil engineering or a related field.

License:

- Possession of a valid California driver's license.

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