

Code: 2313

Title: CIVIL ENGINEERING ASSISTANT-SENIOR

SUMMARY: Performs pre-registration field and office civil engineering work.

DUTIES/RESPONSIBILITIES: (Work assignments may vary depending on the department's needs and will be communicated to the applicant or incumbent by the supervisor)

Assigns work, gives instructions and reviews engineering problems in connection with standards and designs involved in maintaining and constructing county streets, sewers, drainage facilities and structures; Leads the work of civil engineering assistants and drafting technicians engaged in the preparation and review of designs;
Completes or reviews drawings, plans, estimates and preliminary reports for difficult construction and improvement projects;
Supervises and participates in the preparation and review of estimates and specifications;
Inspects construction sites as part of engineering assignments;
Calculates quantities and costs;
Performs construction contract management;
Writes reports and makes estimates of a specialized nature in connection with various engineering projects;
Makes studies and prepares reports which are utilized to determine the most desirable routes, locations and various design features for particular projects;
Performs capacity analysis;
Prepares or reviews traffic signal designs and conducts transportation studies;
Leads and assists in the preparation of contracts which includes special and supplemental specifications;
May perform advanced materials testing and train others in testing procedures;
May supervise a detail design sub group;
May perform research on construction materials and materials testing procedures.

KNOWLEDGE & SKILLS:

Knowledge of:

- application of civil engineering principles to the problems of streets, storm drains, sewers, buildings and other public works;
- drafting and mapping principles and techniques;
- surveying methods;
- materials testing.

Skills:

- interpreting and utilizing engineering plans, maps, specifications and preparing field reports;
- application of engineering theory to complex field and office problems;
- preparing and checking complex designs, details, estimates, plans and specifications of engineering projects;
- establishing and maintaining effective working relationships with contractors, other agencies and the public.

MINIMUM QUALIFICATIONS:

EITHER:

(1) A Bachelor's degree from an accredited college or university with a major in civil engineering and two years of pre-registration civil engineering experience.

(A Master's degree from an accredited college or university with a major in civil engineering may substitute for one year of the aforementioned two years of pre-registration civil engineering experience)

OR:

(2) Six years of pre-registration civil engineering experience.

(Certification as an Engineer-in-training in the State of Arizona may substitute for four years of the aforementioned six years of pre-registration civil engineering experience)

OR:

(3) A Bachelor's degree from an accredited college or university with a major in a related engineering field, such as, but not limited to: mechanical, electrical, or chemical engineering, or in a physical or biological science and three years of pre-registration civil engineering experience.

(A Master's degree from an accredited college or university with a major in one of the related engineering fields or in a physical or biological science may substitute for one year of the aforementioned three years of pre-registration civil engineering experience)

OR:

(4) Two years with Pima County as a Civil Engineering Assistant.

OTHER REQUIREMENTS:

Licenses and Certificates: A valid Arizona class D operator license may be required for some positions at the time of appointment.

Physical/Sensory Requirements: Physical and sensory abilities will be determined by position.

This class specification is intended to indicate the basic nature of positions allocated to the class and examples of typical duties that may be assigned. It does not imply that all positions within the class perform all of the duties listed, nor does it necessarily list all possible duties that may be assigned.