



City of Phoenix

CIVIL ENGINEER III

JOB CODE 20230

Effective Date: Rev. 6/99

DISTINGUISHING FEATURES OF THE CLASS:

The fundamental reason this classification exists is to apply professional engineering knowledge and skills to a variety of difficult civil engineering and architectural functions within various City departments, performing work in the office, field and laboratory. Assignments are broad in scope and require the use of independent judgment and initiative in making technical decisions of considerable difficulty. In addition, the project and program management responsibilities are of equal importance since this class is responsible for the direction of complex capital improvement projects and other major programs. Examples of projects include the design and construction of streets, bridges, water and sewer pipelines, water and sewage treatment plants, airport buildings and infrastructure, public buildings, parking garages, sports and cultural facilities, and parks. Projects encompass multiple disciplines, such as civil, architectural, structural, mechanical, electrical, environmental, hydraulic, and fire protection. Incumbents typically oversee and review studies and design work performed by outside consultants, although some positions apply their professional registration seal to plans and specifications prepared in-house under their direct supervision. Supervision is exercised over the classes of Civil Engineers I and II, Project Managers, Engineering Technicians, and Inspectors and other employees. Work is reviewed by an Engineering or Architectural Supervisor or Division Head through discussion and inspection, principally for determining general progress and adherence to departmental policies and regulations. Responsibility for the most complex and sensitive projects and programs, the level of independence, and level of supervisory responsibility differentiates this class from Civil Engineer II.

ESSENTIAL FUNCTIONS:

- Serves as the project manager for assigned projects, including establishing design goals and project milestones, reviewing and approving project cost, preparing management and council reports, issuing change orders, and managing consultant performance for duration of the contract;
- Supervises professional, technical, and field employees in reviewing the work of outside consultants and contractors, or for in-house preparation of plans, writing specifications, and inspection of construction work;
- Prepares scope of professional services for design work and coordinates the advertisement for consultant submittals;



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- Evaluates design and cost proposals for public works projects submitted by consultants;
- Coordinates consultant submittal reviews and meetings with other divisions and departments;
- Makes technical reviews and provides recommendations regarding designs prepared by consulting engineers and architects;
- Prepares or supervises preparation of conceptual plans, detailed plans, specifications, and estimates for public works construction projects;
- Prepares and controls project contract documents;
- Participates in the planning of future departmental activities by providing technical information in areas of expertise;
- Writes analytical reports;
- Reviews and analyzes work methods and recommends changes in department policy and procedures to increase efficiency and productivity;
- Establishes design and construction schedules and ensures adherence to them;
- Estimates design and construction costs, monitors expenditures, and ensures conformance to design and construction budgets;
- Keeps current, accurate records on each working project;
- Reviews construction projects or other programs to determine conformance to applicable municipal, county, state, and federal laws and regulations;
- Maintains regular and reliable attendance;
- Demonstrates superior seamless customer service, integrity, and commitment to innovation, efficiency, and fiscally responsible activity;
- Works more than forty hours in a workweek without additional compensation to perform assigned job duties, including weekends, evenings, early morning hours, and holidays as required.

Required Knowledge, Skills and Abilities:

Knowledge of:

- Design principles, techniques, and tools used involved in the production and use of precision technical plans, blueprints, drawings, and models.
- Construction methods, materials, and techniques used to construct objects, structures, and buildings.
- Physical principles, laws, and applications, including air, water, material dynamics, light, heat, electric theory, geology, and related natural phenomena.
- The development and derivation of formulas and relationships, the basic assumptions made, and the limitations and areas of applicability of established civil engineering principles, methods, and techniques.
- Local, county, state, and federal laws and regulations relating to construction activities, the environment, and various City programs.



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Ability to:

- Perform a broad range of supervisory responsibilities over others.
- Apply civil engineering and architectural principles, methods, and techniques to theoretical and practical problems with versatility, judgment, and perception.
- Adapt principles, methods and techniques of related professional disciplines.
- Organize, analyze, interpret, and evaluate scientific problems and provide practical, cost effective solutions.
- Keep abreast of changes in scientific knowledge and engineering technology in order to utilize such changes in solution of theoretical or practical civil engineering problems.
- Work cooperatively with other City employees and the public.
- Produce written documents with clearly organized thoughts using proper English sentence construction, punctuation, and grammar.
- Communicate orally with other City employees, contractors, governmental groups or the public in face-to-face one-on-one settings, or using a telephone.
- Review or check the work products of others to ensure conformance to standards.
- Use a personal computer and engineering applications such as AutoCAD in performing duties.
- Work safely without presenting a direct threat to self or others.

Additional Requirements:

- Must be registered in the State of Arizona as a Professional Engineer with proficiency in civil engineering by the end of the probationary period.
- Some positions will require the performance of other essential and marginal functions depending upon work location, assignment, or shift.
- Some positions require the use of personal or City vehicles on City business. Individuals must be physically capable of operating the vehicles safely, possess a valid driver's license and have an acceptable driving record. Use of a personal vehicle for City business will be prohibited if the employee is not authorized to drive a City vehicle or if the employee does not have personal insurance coverage.

ACCEPTABLE EXPERIENCE AND TRAINING:

Four years of experience in the practice of civil engineering or architecture, including one year of experience supervising professional and technical staff, and a bachelor's degree in civil engineering or a related engineering degree. Other combinations of experience and education that meet the minimum requirements may be substituted.



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