

CITY OF HUNTINGTON BEACH

CLASS SPECIFICATION



TITLE: PRINCIPAL CIVIL ENGINEER

PERSONNEL COMMISSION APPROVAL: JUNE 21, 2006

COUNCIL APPROVAL: SEPTEMBER 5, 2006

**PERSONNEL COMMISSION APPROVAL: JUNE 21, 2006 JANUARY 9, 2019
(Revised)**

COUNCIL APPROVAL: SEPTEMBER 5, 2006

JOB CODE: 0096

EMPLOYMENT STATUS: REGULAR FULL-TIME

UNIT REPRESENTATION: MEO

FLSA STATUS: EXEMPT

JOB SUMMARY

The Civil Engineer Principal, under administrative direction, is a supervisory classification responsible for meeting the objectives of the assigned work unit. The position plans, organizes and supervises a work unit of public works engineering; performs the difficult and complex civil engineering work; and, acts as primary coordinator in relation with subordinate staff engaged in engineering support activity. Under administrative direction, plans, organizes and supervises a work unit of public works engineering.

SUPERVISION RECEIVED AND EXERCISED

Reports to: City Engineer, Transportation Manager, or as designated by the Director of Public Works

Supervises: Senior Civil Engineer, Senior Traffic Engineer, Associate Civil Engineer, Assistant Civil Engineer, Senior Engineering Technician, Civil Engineering Assistant, Engineering Technician, Traffic Engineering Technician, Engineering Aide, administrative and/or other personnel as assigned

DISTINGUISHING CHARACTERISTICS

The Civil Engineer Principal position is distinguished from the Civil Engineer Associate and Associate Traffic Engineer positions in that it has a higher level of supervisory responsibility; it requires five (5) years of public works engineering experience and performs more difficult and advanced civil engineering assignments, whereas the Associate level position requires four (4) years of experience. The "Civil" designation requires a degree in Civil Engineering and registration as a professional engineer (PE) and is distinguished from the Civil Engineering Assistant in that the latter only requires a degree in Civil Engineering and two (2) years of experience. Principal Civil Engineer is a management level class requiring a high degree of professional skill and knowledge in

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administering and evaluating complex engineering programs. Principal Civil Engineer differs from Senior Civil Engineer/Senior Traffic Engineer in that the Principal plans, organizes, coordinates, and directs the work of a major section involving several programs whereas the Senior Civil Engineer/Senior Traffic Engineer performs advanced journey level engineering work and oversees the work of consultants and other professional staff on a project basis.

EXAMPLES OF ESSENTIAL DUTIES

Depending on assignment, duties may include, but are not limited to the following: plans, assigns and evaluates the work of an engineering unit staff which may include subordinate engineers and engineering support staff; participates in the design, preparation and review of construction plans, site investigations, cost estimates, specifications and reports for the construction and/or improvement of public facilities; hires, trains and evaluates employees, including those engaged in engineering and engineering support occupations; reviews operational procedures to ensure compliance with applicable policies and quality control standards as well as to ensure currency in technique; performs a variety of administrative duties for the unit such as budget preparation, equipment inventory and work progress status reports; coordinates work projects of various city personnel and representatives and private concerns; may design, coordinate and monitor contracted services; resolves job problems; provides temporary and vacation relief in similar occupational fields as necessary; confers with other department employees and representatives of governmental agencies, public utilities and contractors to obtain information pertaining to the preparation of plans, specifications and cost estimates and to the coordination of contract requirements; functions as a departmental representative at various city meetings; develops and delivers presentations as directed; performs other related duties as required.

- Plans, prioritizes, assigns, supervises, reviews and participates in the work of staff responsible for providing civil engineering services within an assigned section
- Establishes schedules and methods for providing civil engineering services; identifies resource needs; reviews needs with appropriate management staff; allocates resources accordingly; monitors work activities to ensure compliance with established policies and procedures
- Participates in the development and implementation of goals and objectives; makes recommendations for changes and improvements to existing standards, policies, and procedures
- Administers projects from inception to completion including planning, design, review, public meetings, bidding and construction
- Determines the scope of engineering projects; oversees the preparation of plans and specifications by City staff; prepares requests for proposals and contracts for consulting services; reviews plans of consulting engineers and private contractors;

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makes technical engineering decisions and establishes technical criteria and standards

- Monitors design criteria and communicates City ordinances, standards, and policies to ensure compliance with laws, guidelines, and standards
- Approves engineering plans and specifications
- Directs and participates in the planning of assigned capital improvement projects
- Responds to questions and inquiries from the general public, other agencies, developers, contractors, engineering professionals, and City staff regarding engineering and development projects
- Prepares reports and studies on current and future planning and capital improvement projects
- Prepares regional, state and federal grants; monitors and tracks application requests and approved grant programs
- Maintains records and prepares reports concerning operations and programs
- Coordinates activities with other divisions and outside agencies and organizations
- Attends and participates in professional group meetings; maintains awareness of new trends and developments in civil engineering; incorporates new developments as appropriate into existing programs
- Participates in budget preparation and administration; prepares cost estimates for budget recommendations; monitors and controls expenditures
- Develops processes to ensure business continuity in the event of a disaster
- Travels to offsite locations
- Works various hours, including nights and weekends as deemed necessary by manager/supervisor, to conform with changing priorities and meet deadlines
- Reports to work as scheduled; maintains satisfactory attendance record
- Performs other related work as assigned

In addition to the above duties, when assigned to Water Services

- Participates in the development of the five-year water system plan; oversees financial forecasting and analysis activities to ensure that system plans meet future City water needs
- Performs special water system studies to ensure existing facilities are rehabilitated, maintained and operated in an economic manner
- Manages and oversees the maintenance and operations of the water system distribution network analysis model to simulate field conditions; identifies system improvements and upgrades
- Coordinates the review of environmental impact reports and developer studies to ensure water rates, rules and regulations are clarified and understood

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- Establishes schedules and methods for providing water engineering services; identifies resource needs; reviews needs with appropriate management staff; allocates resources accordingly

The preceding duties have been provided as examples of the essential types of work performed by positions within this job classification. The City, at its discretion, may add, modify, change or rescind work assignments as needed.

MINIMUM QUALIFICATIONS

Any combination of education, training, and experience that would likely provide the knowledge, skills, and abilities to successfully perform in the position is qualifying. A typical combination includes:

Knowledge of:

Thorough knowledge of modern principles and practices of civil engineering as related to the variety of projects in public works engineering, survey and inspection methods, practices and techniques, construction and materials and approved safety standards as related to structural design, specifications and inspection; public works projects such as street, highway, water and sewer design, traffic signal design, lighting design, construction traffic control design, traffic delineation design and construction practices, and management; general knowledge of legal implications and code requirements which will affect the project. The Civil Engineer Principal in charge of the unit reviewing private development must possess a thorough knowledge of the State of California Subdivision Map Act and the permit process. A Principal Civil Engineer assigned in Transportation must have specialized knowledge and experience in the field of traffic engineering and transportation planning.

- Principles and practices of civil and structural engineering
- Pertinent Federal, State and local rules, regulations, ordinances and building codes
- Recent developments and best practices of civil and structural engineering
- Principles and practices of budget preparation
- Principles and practices of project management
- Principles of supervision, staff development, and discipline assessment
- Methods, materials, and techniques used in the construction of public works projects and building design and construction
- If assigned to Traffic, traffic engineering and transportation planning

Ability to: Plan complex projects and prepare related designs, estimates and specifications; plan, organize and supervise employees engaged in professional engineering and related technical work; adapt approved engineering methods and

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~~standards to the design and construction of a variety of public works projects; perform difficult engineering computations and to make comprehensive recommendations for the solution of engineering problems; communicate effectively both orally and in writing; organize a large variety of projects and activities; establish and maintain cooperative and effective relationships with those contacted in the course of work.~~

- ~~– Coordinate and direct civil engineering programs~~
- ~~– Supervise, organize and review the work of professional and technical staff~~
- ~~– Select, train, and evaluate staff~~
- ~~– Recommend and implement goals, objectives, policies and procedures for providing civil engineering services~~
- ~~– Understand, interpret, and apply general and specific administrative and departmental policies and procedures as well as applicable federal, state, and local policies, laws, and regulations~~
- ~~– Participate in the preparation and administration of assigned budgets~~
- ~~– Prepare engineering computations;~~
- ~~– Prepare and review engineering plans, specifications, and estimates of public works projects~~
- ~~– Administer contracts~~
- ~~– Perform technical research and solve engineering problems~~
- ~~– Conduct comprehensive engineering studies and prepare reports and recommendations~~
- ~~– Plan and organize work to meet changing priorities and deadlines~~
- ~~– Effectively represent the City to outside individuals and agencies~~
- ~~– Respond to requests and inquiries for information~~
- ~~– Travel to various locations within a reasonable timeframe~~
- ~~– Ensure adherence to safe work practices and procedures~~
- ~~– Establish and maintain effective working relationships with those contacted in the course of work~~

Education: ~~Bachelor's of Science~~ degree in civil engineering or a closely related field from an accredited college or university.

Experience: ~~Minimum of five (5) years of progressively responsible experience in difficult and complex public works engineering specific to the operational needs of the Public Works Department per area of assigned projects. —~~Eight (8) years professional civil engineering experience in the option applied including three (3) years in a senior or supervisory capacity.

License: ~~Requires registration as a California professional engineer (PE); or registration as a PE in another state and the ability to obtain California registration within twelve (12)~~

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~~months of employment. Due to the performance of field duties that may require operation of a vehicle, a valid California Driver's License may be required.~~

License/Certificates: A valid California Class C driver license with an acceptable driving record required at time of appointment and during course of employment.

Registration in the State of California as a Professional Engineer required. If licensed in another state as a Professional Engineer, California registration must be obtained within twelve months of employment.

SPECIAL CONDITIONS

Employees regularly assigned/required to drive a city or personal vehicle in the course and scope of work shall be required to participate in the DMV Employer Pull Notice program

Public Employee Disaster Service Worker: In accordance with Government Code Section 3100, all Huntington Beach city employees are required to perform assigned disaster service worker duties in the event of an emergency or a disaster.

PHYSICAL TASKS AND ENVIRONMENTAL CONDITIONS

Incumbents must be able to meet the physical requirements of the class and have mobility, balance, coordination, vision, hearing and dexterity levels appropriate to the duties to be performed.

Work is performed indoors and outdoors. Incumbents use a computer keyboard and related equipment. Incumbents sit, stand, walk, climb, stoop, crouch, twist, bend, push, pull, reach, grasp, and lift. May require moving tools and equipment weighing 50 pounds or less. When work is performed outdoors, there is full exposure to various weather conditions. Must be able to work in and around bodies of water, including the ocean, lakes, and stormwater facilities. Must utilize approved safety equipment and protective gear, including but not limited, hard hats, respirators, life vests, and/or hearing protective devices. Requires near vision in reading correspondence, plans, specifications and other information. Acute hearing is required when providing telephone service and communicating in person. May perform inspections of work in the field requiring walking on uneven ground, working around machinery, fumes, dirt and gas and in varying temperatures.

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Reasonable accommodation(s) for an individual with a qualified disability will be considered on a case-by-case basis.

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Work is performed indoors and outdoors. When work is performed outdoors, there is full exposure to the elements and the incumbent may be exposed to heat and cold. The incumbent stands, and walks on level and uneven/slippery surfaces, twists, bends, pushes, pulls, crouches, reaches, grasps, lifts and carries items weighing forty (40) pounds or less. Indoor office work requires sitting at a desk or table for prolonged periods of time and use of a computer and screen. Reasonable accommodation(s) for an individual with a qualified disability will be considered on a case-by-case basis.