

SAN BERNARDINO MUNICIPAL WATER DEPARTMENT CLASSIFICATION SPECIFICATION

TITLE: SENIOR ENGINEERING TECHNICIAN

DATE: 07/01/2021

JOB CODE: 21761

FLSA STATUS: NON-EXEMPT

UNIT REPRESENTATION: GEN

Class specifications are intended to present a descriptive list of the range of duties performed by employees in the class. Specifications are not intended to reflect all duties performed within the job.

DUTIES SUMMARY

Under the general supervision perform moderately complex to complex and diverse technical and engineering assignments; plan, design, and coordinate construction activities related to the development, design, and construction of public water utility, water reclamation, and sewer collection facilities; may provide functional guidance, training, and direction to Engineering Technicians as assigned in a lead role.

DISTINGUISHING CHARACTERISTICS

The Senior Engineering Technician is an advanced journey level technical classification with the engineering series. Incumbents perform moderately complex to complex professional engineering work under general supervision and act as a lead for Engineering Technicians. Direction may be received from the Construction Project Manager, Engineer, or Engineering Associate. Supervision is received from the Engineering Manager, Principal Engineer, Construction Services Manager, Development Services Manager, or other designee.

EXAMPLES OF DUTIES

The following duties are typical essential duties for positions in this classification. Any single position may not perform all of these duties and/or may perform similar related duties not listed here.

- Provide courteous and expeditious customer service to the general public and City and Department staffs;
- Routinely adhere to and maintain a positive attitude toward City and Department goals;
- Perform advanced plan review, project coordination, survey work, project design, and design drafting;

- Coordinate, review, check, and inspect the work of contractors and consultants; act as a liaison between contractors/consultants and Department staff;
- Assist in the preparation of reports and construction plans, specifications, and cost analyses for water, wastewater, sewer collection, geothermal, and reclaimed water facilities including pipelines, pumping stations, water storage tanks, reclaimed water and wastewater treatment systems, pressure reducing stations, and other related facilities;
- Assist with complex projects including, but not limited to, tract developments, water/sewer/force main pipeline extensions, wastewater treatment plant upgrades, and water and sewer master plans;
- Assist in submittal, Request for Information, Request for Change, construction submittal review, claims review, and draft responses for review by the Engineer/Construction Project Manager;
- Monitor and report on construction progress and participate in or conduct project meetings; be familiar with electronic document control systems and assist with the administration of use of the system as it relates to construction projects;
- Coordinate project work with Department staff, contractor, developer, and inspector;
- Provide technical scope and justification for contract changes;
- Assist in the resolution of design and construction field problems;
- Create maps with the use of ArcGIS;
- Create the Conditions of Approval for the water and sewer systems for developments proposed in the City of San Bernardino;
- Coordinate with various public and private agencies including developers and various consultants;
- Prepare, maintain, and report statistical, financial, technical or analytical data;
- Perform construction related inspections on project job sites, including but not limited to pipeline (potable, non-potable, and sewer), booster and lift stations, reservoirs, water and wastewater treatment systems, and groundwater well;
- Maintain a positive attitude toward City and Department goals; and
- Perform related work as required.

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:

- English usage, spelling, grammar, and punctuation, including demonstrated proficiency with Microsoft Word;

- Principles and practices of civil engineering, land surveying, field survey methods, procedures, and other engineering disciplines used in the utility industry; Basic construction management practices and inspection methods;
- Basic familiarity with public works and Greenbook standards;
- Drafting principles, methods, and equipment, including demonstrated proficiency with AutoCAD and GIS applications;
- Engineering economics and cost estimating, including cost-benefit and return on investment analysis;
- Accurate record keeping methods;
- Intermediate mathematics, including statistics, trigonometry, and a demonstrated proficiency with Excel applications and other Windows applications;
- Appropriate safety practices, precautions, and procedures, including proper use of personal protective equipment (PPE); and
- Basic public relations principles and practices.

Ability to:

- Communicate effectively in English (written and oral) and write clear and concise technical reports;
- Read and utilize field survey notes in preparation of maps and plans, including preparation of tie sheets;
- Interpret and analyze technical information and make independent judgments;
- Interpret construction and professional service contracts and construction contract documents;
- Interpret and apply water and civil engineering principles and practices in the design of water and wastewater utility projects;
- Apply surveying techniques, horizontal control maps, global position systems, and be able to reconcile inconsistencies in existing horizontal control databases;
- Review and interpret soils analysis and other engineering reports;
- Be proficient in Microsoft Office, Adobe PDF/Blue Beam;
- Organize and prioritize multiple tasks in an effective and timely manner; organize own work, set priorities, and meet critical time deadlines;
- Prepare, understand, and interpret construction plans, specifications, drawings, and other engineering documents;
- Perform engineering and statistical calculations;

- Independently conduct comprehensive investigations and analyses; evaluate alternatives and make sound recommendations;
- Apply applicable federal, state and local laws, regulatory codes, ordinances, and procedures relevant to project;
- Adhere to and comply with safety standards and the proper use of safety equipment and PPE;
- Operate a vehicle observing legal and defensive driving practices;
- Work in the field in varying environmental and weather conditions and perform occasional moderately heavy physical labor;
- Establish and maintain effective relationships with those contacted in the course of work;
- Work under moderate or high stress conditions; and
- Maintain a driving record that meets vehicle code standards and is acceptable to the Department and its insurance carrier.

MINIMUM QUALIFICATIONS

Education/Experience:

Bachelor's degree in engineering, physical sciences, or related field.

AND

Two (2) years of closely related engineering work experience.

OR

Associate's degree in engineering, physical sciences or related field.

AND

Four (4) years of closely related engineering work experience.

OR

High school diploma, or equivalent.

AND

Six (6) years of closely related engineering work experience which would have provided the required level of knowledge, ability, and proficiency required to perform technical engineering duties.

Certificates: Must obtain and maintain a valid California State Water Resources Control Board (SWRCB) Water Treatment Operator Grade 2 certificate within 24 months or appointment.

AND

Must obtain and maintain a valid California State Water Resources Control Board (SWRCB) Water Distribution Operator Grade 2 certificate within 24 months of appointment.

NECESSARY SPECIAL REQUIREMENTS

An employee within this classification may be designated as a "key responder" and as such shall be required to respond to non-normal working hour emergency operational conditions.

Possession of a valid Class "C" California driver's license. For out of state applicants, a valid driver's license is required and a valid Class "C" California driver's license must be obtained within ten (10) days of appointment (CA Vehicle Code 12505c).

Must be able to respond to callouts or emergencies including being on-call.

PHYSICAL TASKS AND ENVIRONMENTAL CONDITIONS

Work involves exposure to potential physical harm, hazardous chemicals, and infectious disease. There is frequent need to stand, sit, stoop, walk, and perform other similar actions during the course of the workday.

Incumbents require sufficient mobility to work in variety of environmental and weather conditions; to climb stairs and ladders daily; to transport materials and supplies weighing up to 50 pounds; to work in a boom truck with lift of 30 to 60 feet; and to work to heights of 150 feet. Must be able to see in the normal visual range with or without correction. Must be able to hear in the normal audio range with or without correction. Employee accommodations for physical or mental disabilities will be considered on a case-by-case basis.

CAREER LADDER

From: Senior Engineering Technician

To: Engineering Associate

Job Description:

Water Board Approved:
Rev. Appr:

7/8/2003
6/22/2021

Testing Standards: App Review/Supp App Review