

City of Oregon City

Position Description

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| Position: Associate Engineer | AFSCME Union |
| Department/Site: Public Works | FLSA: Non-Exempt |
| Evaluated by: Public Works Director/City Engineer | Salary Grade: 36 |

Summary

Participates in engineering projects and studies, development and building plan reviews. Conducts research, develops preliminary plans and designs for civil, structural, infrastructure, and transportation studies.

Distinguishing Career Features

The Engineer is the first in a three-level career path for professional Engineering. The Associate Engineer requires a bachelor's degree in an engineering discipline that would enable participation and learning in a variety of projects and performance of civil engineering assignments. Advancement potential exists to Development Engineer or Project Engineer, depending on need and interests of the incumbent. The Development Engineer option focuses on review of private development construction project plans whereas the Project Engineer option focuses on designing, planning, and implementing public improvement projects. Advancement opportunities continue to Senior Project Engineer or Senior Development Engineer, each requiring registration as a Professional Engineer and the ability to coordinate and perform complex engineering assignments.

Essential Duties and Responsibilities

- Participates in, and independently performs segments in engineering planning for major capital construction and/or maintenance programs. Researches and plans system and facilities requirements, historical information, codes and regulations.
- Assists with design and preparation of engineering plans and drawings. Prepares sketches of plan layouts and diagrams for review. Selects details and defines specifications. Prepares and may guide technicians in preparing complete sets of plans and details.
- Assists with conducting engineering studies for existing public works infrastructure. Analyzes and performs advanced engineering calculations to assess load bearing capacity, volume, safety and other aspects for determining need to upgrade, repair, or replace.
- Performs project management duties as assigned, including preparing cost estimates, schedules, serving as liaison between the City and contractors/consultants, checking progress of work, keeping project records, interpreting design criteria, recording changes as they occur, and making reports.
- May inspect construction project and installation work-in-progress to ensure compliance with contractual stipulations and all applicable codes and statutes.
- Participates in the development plan review process. Approves non-standard building

plan permits. Reviews developer plans for conformance with City standards and rules. Responds to developer inquiries about City requirements and procedures for development.

- Monitors and reviews progress of developer projects in areas such as work-in-progress, arranging for and conducting scheduled and unscheduled inspections.
- Prepares inspection reports. Compiles and maintains project records, numerical data, and documents. Ensures documents are updated to reflect project status and changes.
- Prepares special engineering research assignments. Presents technical data and results for review by others, including committees. Prepares reports, charts, illustrations, and computer-aided simulations.
- Keeps up-to-date on current technology in field of specialization through reading professional literature, attending conferences and training sessions.
- Performs other duties as assigned that support the overall objective of the position.

Qualifications

▪ Knowledge and Skills

The position requires specialized knowledge in civil or an equivalent engineering discipline enabling job performance in civil, structural, traffic engineering, design and project management applications. Requires knowledge of the principles of physics and mathematics applicable to engineering, including the properties of building materials. Requires a working knowledge of the principles, modern techniques and equipment used in design, construction and maintenance of various public works projects. Requires in-depth knowledge of computer-aided-design and computer-aided-design programs. Requires sufficient human relation skills to convey technical engineering concepts, to facilitate discussions and presentations, and to work cooperatively with internal and external customers. Requires technical writing skills sufficient to prepare project specifications, process documentation, and communications suitable for external distribution.

▪ Abilities

Requires the ability to perform all the responsibilities of the position. Requires the ability to derive information from plans, specifications, maps, laws, regulations and codes. Requires the ability to write correct, clear and concise technical materials, such as project reports and specifications. Requires the ability to use specialized drafting, engineering, surveying or electronic tools and equipment. Requires the ability to prepare and evaluate engineering studies. Requires the ability to perform difficult technical research and analyze complex engineering and mathematical problems, evaluating alternatives and recommending or courses of action. Requires the ability to compute accurate engineering calculations and cost estimates. Requires the ability to work cooperatively with senior citizens. Requires the ability to work as contributing member of a team, work productively and cooperatively with other teams and external customers, and convey a positive image of the City. Requires the ability to attain recognition as an Engineer-in-Training within the probationary period.

▪ Physical Abilities

The incumbent performs work of a sedentary to moderately active nature. Requires sufficient ambulatory ability to walk to project locations, to stand for extended periods of

time, and to bend and stoop for limited periods of time. Requires sufficient arm-hand-eye coordination to operate a computer keyboard and pointing devices at a proficient level. Requires visual acuity to create and read three-dimensional and detailed drawings and observe structural work-in-progress. Requires verbal and auditory ability sufficient to carry on conversations with others and make presentations to groups.

- **Education and Experience**

The position requires a bachelor's degree with a major in civil, structural, or a closely related engineering discipline.

- **Licenses and Certificates**

Requires a valid driver's license.

- **Working Conditions**

Work is performed indoors and outdoors where minimal safety considerations exist.

This job/class description, describes the general nature of the work performed, representative duties as well as the typical qualifications needed for acceptable performance. It is not intended to be a complete list of all responsibilities, duties, work steps, and skills required of the job.