



# Civil Engineer

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<b>DEPARTMENT:</b>	Public Works	<b>SUPERVISOR:</b>	Public Works Director
<b>CLASSIFICATION:</b>	Exempt	<b>PAYROLL:</b>	140

**POSITION SUMMARY:** Provide effective direction, control, and management over key engineering functions including utilities and infrastructure engineering, transportation engineering, construction management, and development review. Performs advanced level professional civil engineering work in design, review, planning, construction, and maintenance of public works projects, including street improvements, sanitary sewer, stormwater, water system improvements, and transportation systems.

## **ESSENTIAL JOB FUNCTIONS**

*Any of the following duties and responsibilities may be performed and are not listed in any order. These examples are not necessarily performed by all incumbents, however, and do not include all specific essential functions and responsibilities an incumbent may be expected to perform.*

- Prepares and oversees the preparation of engineering designs using Civil 3D Civil Design Software, construction specifications, and cost estimates for a wide variety of capital improvement projects.
- Performs advanced professional engineering in connection with municipal public works projects. Plans, schedules, and coordinates work on major or complex engineering projects.
- Signs plans for public works improvements.
- Stamps engineering plans for work designed in-house.
- Meets and confers with developers, contractors, engineers, and the public relative to City policies, regulations, and procedures.
- Ensures the effective coordination of work and project development between engineering/design components and the operations/maintenance components.
- Develops and maintains City specifications for use on City infrastructure projects.
- Verifies the work of staff for accuracy, proper work methods, techniques, and compliance with applicable standards and specifications.
- Prepares and oversees the preparation of engineering reports concerning traffic related complaints and problems.
- Reviews a variety of construction plans, maps, reports, applications, and various development and construction agreements. Determines design procedures; interprets the application of design criteria.

- Checks plans and specifications for accuracy and completeness of design. Prepares preliminary and final project cost estimates.
- Coordinates engineering work with other City departments, consultants, developers, and property owners.
- May review development plans and capital improvement plans and make recommendations regarding design, constructability, maintenance, and traffic related issues; meets with developers and consultants to resolve issues. Works with City Engineer on all engineering related matters.
- Participates on a project development team for City projects including engineering and road construction plans and specifications.
- Oversees and performs field engineering and inspection of all engineering and public works related projects and improvements.
- Assists in the planning, organizing, and administering municipal infrastructure in the functional areas of capital project design, construction, and traffic engineering, while providing technical assistance and administration to engineering staff, outside consultants, developers, agencies, commissions, and City Council.
- Performs engineering studies to determine the feasibility of proposed projects or methods, evaluation of ongoing projects, or to determine solutions for existing field problems. Assesses the feasibility and soundness of proposed engineering evaluation tests, products, or equipment. Assembles, analyzes, and evaluates data, makes recommendations, and provides technical guidance based on findings, and prepares technical reports.
- Oversees and participates in conducting routine and periodic inspections of new construction to ensure compliance with approved plans and specifications. Inspects materials, equipment, and methods used for quality and compliance with specifications.
- Enforces ordinance regulations by investigating complaints of alleged violations in the public rights-of-way that pertain to construction. Works with citizens and businesses to achieve compliance.
- Performs complex civil engineering design work, calculates construction quantities, and prepares engineering and construction estimates. Coordinates the preparation of, or develops engineering plans and specifications, coordinates required advertising for bids, reviews construction bids and makes necessary recommendations based on lowest and best bids, competency of vendors and consultants, and the selection criteria.
- Provides professional engineering advice to supervisors and other officials. Makes presentations to the City Council, boards, commissions, civic groups, and the public.
- Prepares or assists in the evaluation of the impacts of development proposals, permits, rezones, plats, etc. on traffic and transportation facilities, water, sanitary sewer, and storm drainage systems.

- Assists in developing and implementing program and strategic planning. Assists in administering and monitoring budgets, and justifications for budgetary recommendations and adjustments. Participates in forecasting additional funds for staffing and resources.
- Provides expert guidance and project information to other agencies. Represents the City to the public, other agencies, governments, private developers, community advisory boards, and consultants including making presentations, participating in meetings, planning, and coordinating activities, and resolving issues.
- Responds to and resolves confidential and sensitive inquiries; Investigates complaints from property owners, businesses, and the public regarding engineering projects, and recommends corrective actions as necessary.
- Comply with and follow all safety rules and procedures for work areas.
- Maintain cooperative relationships with City personnel, elected officials and other agencies.
- Exhibit leadership to fellow employees and foster a positive environment in which employees are focused on producing excellent quality results.
- Encourage and provide excellent customer service. Promote professional and courteous behavior with a creative approach to problem resolution that creates a positive experience for the customer.
- Other duties as assigned.

#### **AUXILIARY JOB FUNCTIONS**

- Maintain proficiency by attending training and meetings, reading materials, and meeting with others in areas of responsibility.
- Maintain work areas in a clean and orderly manner.

#### **QUALIFICATIONS**

*Ability to perform essential job duties with or without reasonable accommodation and without posing a direct threat to the safety or health of employees or others. To perform this job successfully, an individual must be able to perform each essential duty satisfactorily. The requirements listed below are representative of the knowledge, skill, and/or ability required. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

#### **EDUCATION / EXPERIENCE**

- Bachelor's degree from a four-year college or university in civil engineering or a closely related field.
- Minimum of five years of experience as a Professional Engineer (PE) designing public works infrastructure and preparing plan sets for construction.
- Must possess a current Professional Civil Engineer license (PE), from the State of Oregon.

## **KNOWLEDGE, SKILLS, & ABILITIES**

- Thorough knowledge of civil engineering principles, practices, and methods applicable to a municipal setting; considerable knowledge of applicable City policies, laws, and regulations affecting Division activities.
- A minimum of five years of experience using Civil 3D design software for the design of public works infrastructure improvements, preparing full construction plan sets for improvement projects.
- Considerable skill in arriving at cost estimates on complex projects; skill in operating the listed tools and equipment; management skills necessary to effectively manage the work of assigned staff and outside contractors; interpersonal and communication skills necessary to tactfully enforce contractor's compliance with plans and specifications, while maintaining satisfactory relationships with contractors and their employees, as well as to interact tactfully and effectively with the general public.
- Ability to communicate effectively, orally and in writing, with employees, consultants, other governmental agency representatives, City officials, and the public; ability to conduct necessary engineering research and compile comprehensive reports.
- Excellent verbal and communication skills.
- Knowledge of the principles and practices of civil engineering and its application to municipal public works and construction.
- Knowledge of laws, rules, regulations, ordinances, and collective bargaining agreements affecting City policies and operations.
- Knowledge of public works contract administration including contract preparation, contractor selection, administration of contract work, change orders, disputes, claims, equal opportunity, and closing of contracts.
- Knowledge of complex design and drafting methods, software, and equipment.
- Performs the most difficult engineering assignments that require a high level of responsibility, is fully trained in all procedures directly related to the assigned work and is often considered the subject matter expert.
- Ability to address issues and problems that are highly complex, varied, and have competing importance, outcomes, and impacts to the organization.
- Ability to receive work assignments in the form of objectives, priorities, and deadlines.
- Capable of performing duties independently and exhibits skills that allow the incumbent to take on land development, including planning and analysis of engineering systems needed for the use of land including streets, highways, sewage, water facility, storm drain, grading, land use, and utilities.
- Civil engineering applied to estimates, studies, technical reports, design, plans, specifications, and professional recommendations for a variety of engineering activities.

- Knowledge of construction methods and procedures, including survey, inspection, and public works contract administration procedures, and engineering materials and methods.
- Public works contract administration including contract preparation, contractor selection, administration of contract work, change orders, disputes, claims, equal opportunity, and closing of contracts.
- Equipment and materials used in public works infrastructure construction and maintenance.
- Design and drafting methods, software, and equipment.
- Principles and practices of project management.
- Data gathering, analysis, and research.
- Lead, organize, supervise, and evaluate the work of staff.
- Independently plan, perform, and coordinate advanced level professional and technical engineering studies, computations, drawings, reports, and surveys.
- Interpret, apply, and ensure compliance with applicable policies, procedures, laws, and regulations.
- Management and administration of construction and engineering contracts.
- Write clear, concise, and accurate technical and non-technical reports, correspondence, and memoranda; prepare reports, agreements, and accurate records.
- Prepare accurate plans, specifications, cost estimates, and engineering reports and make accurate engineering computations and drawings.
- Learn and use complex software programs and systems, especially as required for engineering design and construction.
- Analyze problems, identify alternative solutions, assess consequences of proposed actions, and implement recommendations; analyze and interpret data; draw valid conclusions; develop reports.
- Explain complicated technical matters in non-technical terms.
- Adapting to changing, intensive deadlines.
- Performing highly detailed work.
- Use math and perform complex scientific and mathematical computations.

### **SPECIAL REQUIREMENTS**

- Must possess a valid state driver's license or ability to obtain one prior to employment. Must be able to maintain a satisfactory driving record.
- Must be physically capable of moving about on construction work sites and under adverse field conditions. (Reasonable accommodations may be made to enable individuals with disabilities to appropriately access construction work sites.)

## TOOLS AND EQUIPMENT USED

Personal computer, including word processing, spreadsheet, and data base and computer-aided-design software; standard drafting tools; surveying equipment including level, theodolite, and electronic distance measuring devices; motor vehicle; phone; mobile radio.

## WORK ENVIRONMENT

*The work environment characteristics described here are representative of those an employee encounters while performing the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

- **Environment:** Normal office setting with some travel for meetings or inspections. The noise level in the work environment is usually quiet in the office and moderate to very loud in the field.
- **Working Conditions:**
  - a. The position has normal business hours. Occasional attendance at evening meetings required.
  - b. Adverse working conditions include exposure to seasonal weather changes including working in inclement weather.
- **Resource Accountability:**
  - a. Records maintained include accountability for files relating to projects such as: improvement agreements, security documents, engineering plans, specifications related to developments, as-built drawings, and program records.
  - b. Responsibility for the proper care of City equipment.

## PHYSICAL ABILITIES

*The physical demands described here are representative of those that must be met by an employee to successfully perform the essential functions of this job. Reasonable accommodations may be made to enable individuals with disabilities to perform the essential functions.*

- **Physical Demands:** While performing the duties of this job, the employee is occasionally required to stand or sit; walk, use hands to finger, handle, feel or operate objects, tools, or controls; and reach with hands and arms. The employee is occasionally required to climb or balance; stoop, kneel, crouch, or crawl; talk or hear. The employee must occasionally push, pull, lift and/or move up to 20 pounds.
- **Vision:** Vision sufficient to read small print, computer screens, and other printed documents. Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth vision, depth perception, and the ability to adjust focus.

- **Mobility:** Incumbents require sufficient mobility to work in an office setting and operate office equipment. Some outdoor work is required to inspect various developments and construction sites. Hand-eye coordination is necessary to operate computers and various pieces of office equipment.

**SUPERVISION**

- Works under the general direction of the Public Works Director but will exercise independent judgement and initiative to complete projects as assigned.
- May exercise general oversight over Engineering staff in the planning, design, construction, and maintenance of streets, sidewalks, water and sewage systems, drainage structures, transportation facilities, and other public works.

THIS DESCRIPTION COVERS THE MOST SIGNIFICANT ESSENTIAL AND AUXILIARY DUTIES PERFORMED BY THE POSITION, BUT DOES NOT INCLUDE OTHER OCCASIONAL WORK, WHICH MAY BE SIMILAR TO, OR A LOGICAL ASSIGNMENT FOR THE POSITION.

The City of Stayton is an Equal Opportunity Employer.

**REQUIRED SIGNATURES**

*My signature below is evidence that I have reviewed and concurred that the above detailed job description appropriately describes the work of the position, including essential job functions, physical demands of the position and the minimum education and experience required of the position.*

\_\_\_\_\_

Civil Engineer

\_\_\_\_\_

Date

\_\_\_\_\_

Public Works Director

\_\_\_\_\_

Date