

CITY OF ANACORTES

Position Description

1/1/98

JOB TITLE: Engineering Tech I

DEPARTMENT: Engineering and Development Services

REPORTS TO: City Staff Engineer

PRINCIPAL PURPOSE OF JOB: Performs moderately complex drafting or survey engineering tasks requiring the use of standard manual and computer drafting or survey instruments. Assists other employees in projects for establishing, improving, maintaining and disseminating records, maps and sketches of utilities, streets and other public works. Assists other employees in a variety of activities including preliminary design preparation, local improvement district applications, field surveying, records maintenance and public works construction and as-built inspections to assure compliance with plans and specifications.

LEVEL OF AUTHORITY: performs work under close and frequent supervision, particularly when the assignment is new or complex. As more experience is acquired, performs routine work in accordance with established and well-known procedures with moderate supervision while in progress and with review of completed assignments.

WORK ENVIRONMENT: Approximately 80 percent of the work is performed indoors, with the remainder performed outdoors in all kinds of weather and on all kinds of terrain.

ESSENTIAL JOB FUNCTIONS

1. Update maps and records as new roads, plats or other changes are made; take field note information gathered from water and street department surveys and new construction to verify placement of new mains, valve locations and manholes and make required map changes. Create or duplicate maps as required for City or other use.
2. Organize, compile, compute and record a variety of data required by the engineering department; perform a variety of related office and field tasks to gather and record data.
3. Work in survey field crew, measuring or establishing distances, running lines and grades; develop cross section and topographic information; record field notes, etc.
4. Use basic survey equipment, computer and drafting equipment for performing preliminary design work for sewer, water and street projects and other municipal projects and for documenting "as-built" information.
5. Assemble and manipulate data bases for records and information.
6. Assist city or staff engineer in performing calculations and system analysis as it pertains to flow calculations and capacities of water, sewer and storm sewer systems.

7. Using computer drafting programs, transfer survey, short plat and long plat information to the City's base maps.
8. Assist city engineer in closure of working drawings that are submitted to the City for construction review.
9. Update City design and construction standards as directed by the city or staff engineer.
10. Respond to public inquiries in a courteous manner and within the scope of knowledge to provide information about such things as utility location and City design standards and refer to employee of higher classification where appropriate.
11. Organize the drawing files and save drawing son the computer for quick retrieval.
12. Prepare drawings for other City departments for a variety of uses, including public presentations.
13. Using the video of City sewer lines, document location points and organize retrieval system for easy access of information.

ADDITIONAL JOB FUNCTIONS

1. As directed and under close supervision, perform preliminary drafting for construction projects and bid specifications, such as streets and water distribution system; record engineering data on maps or reports; detail enlargements on drawings.
2. As directed and in the absence of the public works inspector, make sewer inspections at construction sites to ensure installations are properly constructed and accurate "as-built" are recorded.
3. May perform work of higher classified positions occasionally and as assigned.
4. May perform duties of similar complexity in any City department as required or assigned.
5. May inspect public works projects.

QUALIFICATIONS AND CAPABILITIES

Technical

1. Must have pre-engineering or related course work in vocational school or college, or equivalent knowledge gained through experience.
2. Must have knowledge of both manual and computer drafting as related to construction and public works projects. Must have three years AutoCAD and related programs experience or related formal training.

3. Must have ability to use algebraic formulas, trigonometry tables and statistical mathematics.
4. Desirable to be familiar with engineering construction terms and have general knowledge and experience with surveying methods.
5. Must have a valid WA state driver's license.
6. Must be able to acquire and maintain certification as a flagger.
7. Must be able to acquire and maintain a first aid/CPR card.

Physical

1. Must have physical strength and ability to lift up to 60 pounds and carry such weight for approximately 200 feet and to sustain such activity intermittently throughout a day.
2. Must be able to navigate uneven ground in all weather and soil conditions over hilly terrain with obstacles.
3. Must be capable of clearing trails through woods and underbrush.
4. Must have average visual ability for both distance and close-up observations and to use optical survey instruments.
5. Must have good depth perception and ability to distinguish color differentials.
6. Must have hearing sufficient, for example, to hear cars, verbal signals at a moderate distance and to communicate by two-way radio.

Other

1. Must have reading ability sufficient to read manuals, trade magazines and other technical materials such as ordinances and codes.
2. Must have writing ability sufficient to write correspondence and legal descriptions.
3. Must have good communication skills to deal with the public and to work cooperatively with other City employees.

Use of Tools

Ability to use all tools for manual and computer drafting and all survey instruments; also must use various hand tools, such as machete, ax, pry bars, hammer and manhole lifters.

OTHER

1. As an absolute condition of employment, employees are required upon hire to sign a drug-free workplace agreement and an agreement not to use tobacco products of any kind while on the job.

2. The statements contained in this job description reflect general details as necessary to describe the principal functions of this job, the level of knowledge and skill typically required and the scope of responsibility. It should not be considered an all-inclusive listing of work requirements. Individuals may perform other duties as assigned, including work in other functional areas to cover absences of relief, to equalize peak work periods or otherwise to balance the work load.

Are you able to perform the essential functions of this job with or without accommodation?

Yes ___ No ___

If testing is required, will accommodation be necessary?

Yes ___ No ___

Signature

Date