

CITY OF KENT
POSITION DESCRIPTION

Position Inventory Number: _____

Classification Specification: SURVEY PARTY CHIEF

Salary Range: NR34

Position Description: Survey Party Chief

Incumbent: _____

Location: Public Works Engineering - Land Surveying



GENERAL PURPOSE:

Under the direction of the Land Survey Supervisor, perform routine to technical survey duties on a survey crew. The incumbent may also oversee a survey crew to complete surveying projects; make advanced mathematical computations in the performance of assigned field work; assure that acceptable field methods are used and that the work is completed and recorded in an accurate manner; assure survey work schedule meets with the City Land Surveyor's, inspector's, and contractor's needs.

Work is characterized by difficult, complex, and specialized technical duties in the surveying, calculating, organizing, scheduling, assigning, and overseeing of the activities of a survey crew, requiring the ability to make decisions and take responsibility for such decisions. Duties and responsibilities include, but are not limited to, being responsible for the survey crew's performance of property and construction surveys in the field; performing topographical surveys; conducting preliminary surveys for capital improvement projects such as road construction, flood control projects, building sites, setting property corners and performing geodetic control surveys; recording legible, accurate, and complete survey notes; performing advanced field design calculations, such as coordinates, curves, grades and volumes; reading and interpreting design plans and drawings of roads and structures; performing necessary calculations to assure closures of traverses and level loops; accurately setting slope stakes, bluetops, bridge control, and reference points for City construction projects; coordinating survey crew work schedule with project inspector and contractor on a variety of Public Works projects; operating all standard types of surveying instruments and equipment; and assuring survey projects are completed in an accurate and timely manner.

Work is performed under limited supervision. The supervisor sets the overall objectives and resources available. The incumbent and the supervisor work together to develop the deadlines, projects, and work to be completed. The incumbent is responsible for the work, plans and carries out the assignment, resolves most conflicts that arise, coordinates work with others, and interprets policies on own initiative in terms of established objectives. The incumbent keeps the supervisor informed of progress, potentially controversial matters, or far reaching implications. Work is reviewed in terms of feasibility, compatibility with other work, or effectiveness of results.

ESSENTIAL DUTIES AND RESPONSIBILITIES:

Responsible for the survey crew's performance of property and construction surveys in the

field; assure survey projects are completed in an accurate and timely manner; provide training and work direction to field survey crew as assigned; serve as Party Chief in accordance with the survey unit standard procedures.

Perform field survey work and topographical surveys; conduct preliminary surveys for capital improvement projects such as roads, flood control projects, building sites, setting property corners and performing geodetic control surveys; record legible, accurate, and complete survey notes; reduce and draft survey notes as required.

Perform advanced-level field design calculations, such as coordinates, curves, grades, and volumes.

Read and interpret design plans and drawings of roads and structures; perform necessary calculations to assure closures of traverses and level loops; accurately set slope stakes, bluetops, bridge control, and reference points for City construction projects.

Coordinate, direct, and perform survey crew work related to horizontal control traverses for construction projects and section breakdowns; coordinate and perform vertical control work in establishing an accurate system of City benchmarks for elevation control; coordinate survey crew work schedule with the project inspector and contractor on a variety of Public Works projects.

Operate all standard types of surveying instruments and equipment including, but not limited to, Global Positioning Systems (GPS), total stations, electronic data collectors, theodolites, levels, and other complex survey instruments; assure all equipment is in proper working order; calibrate and/or make necessary technical adjustments as needed.

Perform leveling duties; determine source of errors and adjust instrumental errors.

Produce and analyze layouts, tracings, various plans, and statistics; and prepare routine reports.

Download and convert survey data collector information into design network; edit raw data and maintain data; maintain topographical mapping, wetland delineations, projects, control traverses, and their corresponding adjustments; maintain the operability of data collector.

Assist City utility crews in location of utilities.

Under direction of a licensed surveyor, collect "General Land Office" (GLO) boundary evidence; perform essential surveying calculations in the office and field; and prepare cut sheets for utility and street construction staking.

Under direction of a licensed surveyor, prepare for and survey real property boundaries; communicate with private citizens when City surveys cross or border private properties.

Assure that all safety regulations are adhered to in accordance with state regulations.

Order office, field equipment, and supplies in accordance with established procedures.

Become familiar with, follow, and actively support the City's and Department's mission, vision, values, and behavior statements.

PERIPHERAL DUTIES:

Perform related duties as assigned.

KNOWLEDGE, SKILLS, AND ABILITIES:

KNOWLEDGE OF:

- Principles and practices of survey techniques, terminology, and equipment
- Methods, equipment, and materials used in surveying and drafting
- Modern road and utility construction practices
- Technical aspects of field of specialty
- Principles of trigonometry, geometry, and algebra
- Recordkeeping techniques
- Research methodology and analysis methods and techniques
- Applicable laws, codes, regulations, policies, and procedures
- City organization, operation, policies, and procedures
- Modern office practices, procedures and equipment including personal computers related software such as Autocad, ArcView, word processing, and spreadsheets programs
- Correct English grammar, spelling, punctuation, and vocabulary
- Current first aid and traffic flagging procedures
- Effective use of interpersonal skills in a tactful, patient, and courteous manner
- Effective oral and written communication skills

SKILLED IN:

- Application and operation of current survey techniques, principles, practices, and equipment
- Performance of advanced-level mathematical calculations and the application of trigonometry, geometry, and algebra quickly and accurately
- Effectively using interpersonal skills in a tactful, patient, and courteous manner
- Preparing accurate and legible field notes, sketches, and reports
- Effectively organizing and expressing ideas through use of oral and written communications

ABILITY TO:

- Read, interpret, and work from engineering plans, blueprints, construction and shop drawings, maps, and sketches
- Prepare accurate and legible field notes, sketches, and reports
- Perform manual and technical field survey work; analyze instrument errors; and adjust in the field
- Maintain accurate records of work perform and prepare reports
- Clean and adjust survey instruments
- Communicate effectively both orally and in writing
- Maintain records and prepare reports
- Establish and maintain effective working relationships with co-workers, elected officials, managers, employees, and the public
- Observe legal and defensive driving practices
- Perform effectively as a team member
- Compose, proofread, and edit general correspondence, routine reports, etc.
- Read, analyze, and interpret technical journals, financial reports, legal documents, operating and procedure manuals, general business periodicals, professional journals, government regulations, etc.
- Speak effectively and present information in one-on-one and small group situations to the

public and other employees of the organization

- Add, subtract, multiply, and divide; compute fractions, ratios, percentages, and proportions; draw and interpret graphs and charts; work with mathematical concepts such as fundamentals of plane and solid geometry and trigonometry; apply concepts such as fractions, percentages, ratios, and proportions to practical situations
- Interpret and carry out a variety of instructions furnished in written, oral, diagram, or schedule form
- Interpret an extensive variety of technical instructions in mathematical or diagram form and deal with several abstract and concrete variables

MINIMUM EDUCATION AND EXPERIENCE REQUIRED:

Education: Graduation from high school or equivalent supplemented by courses in surveying mathematics; and

Experience: Four (4) years of increasingly responsible work experience in construction and land survey with at least one (1) year of experience in a lead or supervisory capacity.

Or: In place of the above requirement, the incumbent may possess any combination of relevant education and experience which would demonstrate the individual's knowledge, skill, and ability to perform the essential duties listed above.

LICENSES AND OTHER REQUIREMENTS:

- Valid Washington State driver's license, or the ability to obtain within thirty (30) days of employment
- Must be able to successfully pass the City's pre-employment driver's records check; successfully complete the City's Defensive Driving Course; and maintain an excellent driving record
- Must obtain required certification within six (6) months of employment
- First Aid/CPR certification and Current Traffic Flagging card, or the ability to obtain within six (6) months of employment

MACHINES, TOOLS, AND EQUIPMENT USED:

Standard and specialized hand and power machines, tools, and equipment used in surveying including but not limited to levels, electronic measuring equipment, theodolites, total stations, data collectors, rods, and calculators. The incumbent is required to operate a City vehicle to conduct field work.

The incumbent may also use typical business office machinery and equipment including, but not limited to, personal computer including technical, drafting, engineering applications, and word processing software, printers, telephone, and fax and copy machine.

PHYSICAL DEMANDS:

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.

While performing the duties of this job, the employee is regularly required to stand, walk, and talk or hear. The employee frequently is required to use hands to finger, handle, or feel and reach with

