

IOWA DEPARTMENT OF ADMINISTRATIVE SERVICES ▼

HUMAN RESOURCES ENTERPRISE

SURVEY PARTY CHIEF

DEFINITION

Serves as a lead worker and oversees the activities of an engineering survey party engaged in the gathering of data used in the planning and/or design of highways and other State construction projects; performs related work as required.

The Work Examples and Competencies listed are for illustrative purposes only and not intended to be the primary basis for position classification decisions.

WORK EXAMPLES

Assists the supervisor by instructing employees, answering questions and, distributing, balancing and checking work; may make suggestions on appointments, promotions, performance and reassignments.

Prepares or reviews reports relating to payroll, property damage vouchers, expense claims, and weekly and monthly work activities.

Assists in the training of lower level technicians in the use of surveying instruments and land surveying procedures and techniques.

Directs the work of a party of technicians to determine drainage area boundaries and areas for project structures by studying and interpreting aerial photographs, walking drainage areas, measuring with a planimeter, and performing standard calculations or by obtaining the information when available from the county engineer's office.

Operates survey instruments such as, levels, total stations, GPS, and data collectors, in the more difficult stages of surveys such as laying out spiral curves and difficult transverses.

Records data gathered by survey party such as topography (transit notes), cross section (elevation notes), benchmark (level notes), etc., in electronic survey data collectors, and survey field books; edits and evaluates survey data on a computer.

Contacts landowners and obtains permission to enter the property to collect information related to the survey such as high water levels, location of tile lines, wells, section corners, etc.

Contacts utility companies and local government officials to obtain information regarding the location of water, phone, gas, and power lines.

Draws profiles and plats from field notes for use in writing legal descriptions of land acquisitions.

Makes mathematical, algebraic, and trigonometric calculations to compute horizontal and vertical curves, calculate drainage areas, close survey configurations.

Designated positions perform duties related to snow and ice removal, which include: accessing the Roadway Weather Information System (RWIS), weather reports, and other related computer software applications to record and receive data and make decisions regarding times, temperatures, weather conditions, and material usage to operate snow and ice removal equipment such as, but not limited to single or tandem axle dump trucks that may be equipped with tailgate or hopper spreader, straight blades or V-plows, wing plows, and underside ice blades; includes preparing and spreading abrasives and de-icing chemicals on the roadway by using a loader for mixing abrasives and chemicals; may perform other maintenance duties as assigned.

COMPETENCIES REQUIRED

Knowledge of engineering survey principles and practices.

Knowledge of the operation and maintenance of survey instruments such as transits, levels, total stations, data collectors, planimeters, and theodolites.

Knowledge of the occupational hazards and safety precautions applicable to the work.

Knowledge of agency policies and procedures such as expenditures, recordkeeping reimbursement of travel expenditures, purchase of materials and supplies, etc.

Knowledge of information sources used to determine land ownership and location of telephone and power cables, water and gas mains, and other appurtenances.

Knowledge of mathematics including algebra, geometry, and trigonometry.

Ability to read and understand engineering plans, aerial photographs, plats, etc.

Ability to operate survey instruments including transits, levels, total stations, data collectors, planimeters, and theodolites.

Ability to operate computers and/or other electronic devices and use programs/applications to conduct Department of Transportation business.

Ability to edit and check field survey information on a computer.

Ability to accurately and legibly record field survey notes.

Ability to accurately draw profiles and plats by using field notes.

Ability to occasionally (1-33% of the time) lift /lower, carry and push/pull items weighing up to 75 pounds.

Ability to climb, kneel, crouch, crawl, stoop and twist and perform duties using appropriate tools and equipment within safety standards.

Ability to walk over uneven ground.

Ability to drive vehicles in a safe and conscientious manner.

Ability to read and write English.

Ability to understand and follow verbal and written directions/instructions given in English.

Ability to accurately perform mathematic calculations.

Ability to inspect the completed and in-progress survey work of lower level technicians for accuracy, compliance with standards, and other related criteria.

Ability to work outdoors in all types of weather conditions day or night, in normal and emergency situations.

Designated positions will also require the:

Knowledge of effects of weather on road surfaces.

Knowledge of winter maintenance operations, such as anti-icing and de-icing principles.

Ability to drive equipment with a manual transmission and clutch.

Ability to appropriately use anti-icing or de-icing materials.

Skill in use of Roadway Weather Information System (RWIS), weather reports and other related computer software applications.

Displays high standards of ethical conduct. Refrains from dishonest behavior.

Works and communicates with all clients and customers providing polite, quality professional service.

Displays a high level of initiative, effort, attention to detail and commitment by completing assignments efficiently with minimal supervision.

Follows policy, cooperates with supervisors and aligns behavior with the goals of the organization.

Fosters and facilitates cooperation, pride, trust, group identity and team spirit throughout the organization.

Exchanges information with individuals or groups effectively by listening and responding appropriately.

EDUCATION, EXPERIENCE, AND SPECIAL REQUIREMENTS

The equivalent of four years of full-time engineering survey experience which included the operation of electronic and mechanical survey instruments;

OR

an equivalent combination of education and experience substituting the equivalent of thirty semester hours of college, university, or technical school course work in civil engineering, construction engineering, or photogrammetry for one year of the required experience with a maximum substitution of four years;

OR

employees with current continuous experience in the state executive branch that includes the equivalent of twelve months of full-time experience as an Assistant Survey Party Chief.

NECESSARY SPECIAL REQUIREMENTS

Designated positions in this class require possession of a valid Commercial Learner's Permit upon hire. Within a timeframe determined by the appointing authority, a valid Class A Commercial Driver's License with the required endorsements and applicable restrictions must be obtained and subsequently maintained in order to continue employment.

If a CDL is not required, all positions are required to have and maintain a minimum of a valid Class C Non-Commercial Operator's License.

In conjunction with Title 49 of the Code of Federal Regulations (parts 40 and 382), designated positions in this job class require a pre-employment drug screen and will require ongoing participation in the employer's random drug and alcohol testing program and will be subject to the regulations regarding the Federal drug and alcohol testing program.

Prior to starting employment, all persons are required to have a post offer pre-employment physical verifying the physical ability to perform the duties described.

NOTES

Employees must be able to travel and may be required to stay away from home overnight during assignments.

Employees in designated positions must be able to work up to 16 consecutive hours.

Effective Date: 11/17 SA