

SURVEY AIDE

JOB DESCRIPTION

Classification Responsibilities: Under direct supervision, performs entry-level survey engineering work in the field; performs related duties as required.

Distinguishing Features: An employee of this class performs survey-engineering work of elementary and routine difficulty. The Survey Aide receives direct supervision and on-the-job training from the Survey Party Chief and occasionally the Instrument Technician. Work is often performed under hazardous conditions such as within road intersections, on the center line of heavily traveled streets or highways with no median for protection, or close to heavy equipment that is moving fast or operating under dusty, poor visibility conditions. Considerable physical exertion may be required on a rotational basis (i.e., driving stakes or 60 penny nails into hard earth with a ten pound sledge hammer under hot [+90° F] and dusty conditions). The Survey Aide class is distinguished from the Instrument Technician class in that the former performs the bulk of the physically demanding work, uses the Total Station and Hewlett Packard 48Gx data collector far less frequently, and has no responsibility for training lower-level workers. Employees are required to use appropriate safety procedures and equipment in performing assigned duties. This class is FLSA nonexempt.

QUALIFICATIONS

Minimum Qualification(s) Required. Graduation from high school or GED.

Special Requirement(s). Must possess a valid Arizona Driver's License by hire date.

Substance Abuse Testing. Due to the safety and/or security sensitive nature of this classification, individuals shall be subject to pre-employment or pre-placement alcohol, drug and/or controlled substance testing as outlined in City policy and procedures.

Preferred/Desirable Qualification(s). Coursework in algebra, geometry, and trigonometry and some survey engineering work experience are desirable.

ESSENTIAL FUNCTIONS

Communication: Communicates with other City employees in order to complete survey assignments.

Manual/Physical: Distinguishes colors to properly mark survey stakes. Detects traffic sounds when working near moving traffic and backup warning devices when working around moving equipment. Operates a one-ton survey truck requiring a standard Arizona Driver's License to get to work site in order to perform assignments. Uses common hand tools, such as a hammer, in order to drive stakes. Performs physical inventories of items on survey truck. Digs up ground using a pick, shovel, or spade to set survey stakes. Sets sights on control points. Cleans survey equipment such as theodolites, levels, total station, etc. Organizes survey supplies in the survey truck in a neat and orderly manner. Sets up and removes barricades and traffic cones to perform survey work. Works in a variety of weather conditions

while performing surveys. Works in hot, dusty, noisy construction environment around heavy equipment and in traffic. Meets scheduling and attendance requirements.

Mental: Performs mathematical calculations to complete surveys. Understands blueprints and layouts.

Knowledge/Skill/Abilities:

Knowledge of algebra, geometry, and trigonometry.

Skill in the use and care of basic hand tools (i.e., pick-ax, shovel, sledgehammer, etc.)

Ability to:

properly operate a crew-cab pickup with utility boxes installed;
learn to apply basic survey engineering techniques and procedures;
train in surveying techniques and the more difficult survey work;
load and unload equipment and supplies used by the survey crew;
dig and search for survey monuments;
cut and remove brush and undergrowth from the Survey Party Chief's line of sight;
clean and care for surveying instruments and tools;
check basic mathematical calculations related to survey work, such as those for grades, curves, cuts, and fills;
apply algebra and geometry to calculate right triangles and related survey problems;
apply addition and subtraction to calculate elevations and stationing;
serve on a field survey crew conducting boundary, topographical, preliminary, and construction staking surveys;
hold plumb and elevation rod in obtaining elevations;
drive stakes to set grades on construction projects;
hold surveying chain in measuring distances;
operate survey equipment, such as the Global Positioning System (GPS), Total Station, electronic level, in the absence of other crew members or for training purposes;
record as-built information (length of sewer lines, water lines, and storm drains, station to sewer and water services, and tie downs [locations] of monuments and manholes) onto plans or information sheets;
handle the physical requirements of the position (i.e. bending, squatting, stooping, removing manhole covers, and frequently using a 10 lb. sledgehammer to pound stakes for an hour at a time);
fill in for Instrument Technician as needed; and
establish and maintain effective working relationships with supervisors and coworkers under unpleasant working conditions, such as when performing hard physical labor and having to redo physically demanding work in the heat, as well as in dusty conditions due to construction equipment.

The duties listed above are intended only as general illustrations of the various types of work that may be performed. Specific statements of duties not included does not exclude them from the position if the work is similar, related, or a logical assignment to the position. Job descriptions are subject to change by the City as the needs of the City and requirements of the job change.

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GL/mz

CS3519.DOC

EEO-Tech

NDOT Safety-Yes

NDOT Random-No

DOT Safety-No

RESP-No

JOB FCTN-ENG

PAY PLAN 1-120

PAY RANGE: 36

SH-No

Security-No

CDL-No

IND-8810

SWORN-No