



Birmingham Water Works Job Description

Job Title: Land Surveyor Tech

Department: Engineering - 360

Reporting Relationship: Engineering Land Surveyor Exempt Status: Non-Exempt

Grade: 13

General Responsibilities:

Work and train directly under Land Surveyor to develop competency and skills regarding surveying BWWB properties and operating surveying and GPS equipment. Perform work involving planning, coordinating, and administrating the work of survey crews and related staff engaged in land and construction surveying.

Essential Job Functions:

1. Work directly with Land Surveyor in accomplishing survey projects.
2. Assist in preparing plats, maps, reports and legal descriptions of properties, easements, or rights-of-way.
3. Plans and assigns work, reviews and evaluates performance of technical personnel engaged in surveying activities associated with Water Works projects and the location of property
4. Plans the fieldwork and selects known survey reference points to determine the precise location of all important features of the survey area.
5. Researches public records such as deeds, maps, plats, and other survey related documents.
6. Maintains survey equipment and prepares specifications necessary for the purchase of new equipment.
7. Records the results of the survey, verifies accuracy of data, prepares plats using drafting software and other survey software.
8. Coordinates with engineers the needed information to design various Water Works projects such as storm sewers, pressure reducing stations, etc.
9. Obtains field data, elevation and topography, plot sketches to assist in calculating and planning, performs field and office survey calculations.
10. Operates HyDrone, MicroDrone, and all other Small Unmanned Aircraft Systems (sUAS)-related equipment.
11. Operates all Trimble Robotics, GPS, and Data Collection equipment and software Operates all other survey equipment; specifically, TopCon Total Station, GPS, and Data Collector; Carlson GPS and Data Collector; and Nikon Total Station.
12. Operates survey, drafting, GNSS-processing, and Photogrammetric software; specifically, Carlson Survey with IntelliCAD, Carlson GIS, Carlson GNSS, Trimble Business Center (TBC), and AutoCAD.
13. Prepare extensive records and data logs of survey projects.
14. Research public record maps, deeds, legal descriptions to determine property ownership.
15. Set land boundaries and GPS monuments under the supervision of the Land Surveyor.
16. Applies knowledge of mathematics (Algebra, Trigonometry and Plane Geometry) to survey techniques.
17. Clear surveyed property line boundaries for setting survey markers.

18. Perform other duties as assigned.

Minimum Qualifications:

Education:

Associate's degree in Drafting or Engineering, or equivalent combination of education and experience.

Experience:

Two years' experience in property survey and/or maintenance work and /or labor position. Should also have experience and knowledge in the following areas:

- Knowledge of the laws, codes, methods, principles and practices related to land surveying including ALTA/ACSM Standards
- Knowledge of the architectural and engineering principles and practices applied in the location, design, inspection, and construction of Water Works projects
- Knowledge of current developments and literature in the field of surveying Knowledge of survey instruments and their proper use
- Ability to determine property ownership from the research of plat books, deeds, and maps
- Ability to perform complex mathematical calculations related to surveying
- Ability to read and interpret civil engineering plans, maps, and specifications
- Ability to maintain complete and accurate files and records
- Ability to supervise and instruct subordinates in proper and safe work environments
- Ability to establish and maintain effective working relationships with subordinates, supervisors, and the public
- Ability to communicate clearly and effectively, both orally and in writing

Supervision:

NONE

Certificates, Licenses, Registrations:

Valid Alabama Driver's License

COMPETENCIES:

To perform the job successfully, an individual should demonstrate the following competencies:

Design

- Generates creative solutions;
- Translates concepts and information into images;
- Uses feedback to modify designs;
- Applies design principles; Demonstrates attention to detail.

Organizational Support

- Follows policies and procedures;
- Completes administrative tasks correctly and on time;

- Supports organization's goals and values;
- Benefits organization through outside activities;
- Supports affirmative action and respects diversity.

Innovation

- Displays original thinking and creativity;
- Meets challenges with resourcefulness;
- Generates suggestions for improving work;
- Develops innovative approaches and ideas;
- Presents ideas and information in a manner that gets others' attention.

Judgment

- Displays willingness to make decisions;
- Exhibits sound and accurate judgment;
- Supports and explains reasoning for decisions;
- Includes appropriate people in decision-making process;
- Makes timely decisions.

Planning/Organizing

- Prioritizes and plans work activities;
- Uses time efficiently;
- Plans for additional resources;
- Sets goals and objectives;
- Organizes or schedules other people and their tasks;
- Develops realistic action plans.

Quality

- Demonstrates accuracy and thoroughness;
- Looks for ways to improve and promote quality;
- Applies feedback to improve performance;
- Monitors own work to ensure quality.

Quantity

- Meets productivity standards;
- Completes work in timely manner;
- Strives to increase productivity;
- Works quickly.

Safety and Security

- Observes safety and security procedures;
- Determines appropriate action beyond guidelines;
- Reports potentially unsafe conditions;
- Uses equipment and materials properly.

Physical Demands:

Walking various distances in varying terrain 70% of the time. May be required to bend, stoop, climb, etc in order to accomplish surveying tasks.

Working Environment:

Quiet; (examples: Library, Private Offices).
Outdoors exposed to extreme hot/cold and or wet weather conditions.

I acknowledge that I have read the job description for this position and can perform the essential functions of the job with or without reasonable accommodation.

Signature

Date

Revised: 04/18