



## CLASS SPECIFICATION

Class Title: Engineering Aide I  
Department: Public Works

Class Code: 323  
Eff. Date: 1/3/94  
Grade: 16  
Revised: 11/18/17

### GENERAL PURPOSE

Under general supervision of the Public Works Civil Engineer, performs basic survey, design, drafting, field inspections, and related work.

EXAMPLE OF DUTIES (Any one position does not include all of the duties listed; nor do the listed examples include all duties which may be found in positions of this class.)

Assists in researching, updating, and mapping all existing flood control easements, structures, and drainage channel features of the Davis County Storm Drainage System, and creates maps using County aerial photos and GIS data.

Assists in making engineering estimates for Flood Control and/or roadway projects; assists the general public with survey and related engineering questions. Assists in accommodating FEMA, State, and USACOE agency regulations affecting Davis County and local storm drainage systems by producing mapping, data, graphics, and related field surveying/control and inspections.

Assists in preparing plans and construction specifications; conducts on-site construction evaluations; analyzes placement of structures and materials; issues requests for soil compaction and concrete testing; assists with construction management of Public Works/Flood Control facilities and sites such as culverts, piping, and open channel construction and maintenance.

Assists in the designing and drafting of plan-profile drawings, maps, charts, construction plans, etc. using AutoCAD drafting software. Uses site design software to design roads, flood control channels, and other constructions projects incorporating aerial photograph background and GIS data.

Assists in the preparation of construction specifications, bid documents, work orders, and agreements. Assists in the review, processing, issuing, and inspecting of Road Right-of-Way Excavation permits and related projects in the Unincorporated County area.

Assists with conducting field surveys; operates levels, and GPS equipment, and transfers gathered data to electronic files and drawings. Performs calculations, prepares field notes, sets survey stakes and monuments; creates maps and drawings for reproduction and distribution.

Assists in providing survey controls to establish location and elevation of County properties, flood control facilities, and roads using GPS, level, and total station equipment. Assists and works with the County Surveyor and the Property Manager to establish property line control and prepare legal descriptions for easements and properties.

Assists in the preparation of cost estimates and prioritization of proposed Flood Control and roadway projects. Assists with the creation and management of the Roadway Surface Management System (RSMS) or an equivalent program selected by administrators and supervisors.

Assists County GIS staff in mapping and revising the Flood Control designated channel/storm drainage system, road facilities, and County properties and improvements.

Performs field measurements of all piezometer sites at dams and other flood control facilities, and prepares data for reporting to the State Engineer's Office on a monthly basis.

Assists and works with the other Public Works employees to operate, maintain, install, and repair the weather ALERT System, including the hardware (weather stations) in the field and software (computer) in the office; assists with servicing the department's hand-held radio system.

Operates a motor vehicle in a safe manner and in compliance with all Utah laws and regulations.

May operate light duty snow removal vehicles as needed to supplement road crews during heavy snow events.

May perform on call duties in conjunction with snow removal duties.

Performs other related duties as assigned.

## MINIMUM QUALIFICATIONS

1. Education and Experience:

Graduation from high school and one (1) year of college level or technical school course work in computer-aided drafting, pre-engineering or a directly related field, plus one (1) year of full-time experience in technical engineering, CAD, mapping, surveying, or a closely related field; or an acceptable combination of education and experience. Must have training or experience using AutoCAD.

2. Special Requirements:

Must demonstrate proficiency level using AutoCAD.

Employees driving a personal or a County vehicle for job related travel must

possess a valid driver license and must operate a motor vehicle in a safe manner; new employees with an out-of-state license must obtain a valid Utah Driver License within sixty (60) days of hire date (exceptions for military personnel and their dependents).

Employees driving a personal vehicle while on county business must maintain the minimum vehicle liability insurance as specified in the Utah Code.

3. Necessary Knowledge, Skills and Abilities:

Thorough knowledge of: basic algebra principles and adaptability to higher math skills; surveying including the use of instruments and terminology, construction surveying principles, entry-level knowledge of computer operations; use of AutoCAD software.

Skill in using AutoCAD software.

This position may require the driving of a motor vehicle; skill in operating a motor vehicle in a safe manner; ability to insure motor vehicle is operating in a safe manner; knowledge of Utah motor vehicle rules and regulations

Ability to: read and interpret construction plans, maps, and land survey field notes; efficiently use applicable computer hardware and software including AutoCAD; communicate effectively (orally and in writing); follow written and oral instructions; establish and maintain effective working relationships with supervisors, other employees, other agencies and the general public.