



## CLASS SPECIFICATION

**Class Title:** Senior Engineering Aide  
**Department:** Public Works  
**FLSA:** Non-exempt

**Class Code:** 3327  
**Grade:** 20  
**Eff. Date:** 6/18/08  
**Revised:** 2/09/24

### GENERAL PURPOSE

Under general supervision of an administrative authority, performs complex and skilled engineering, survey, and drafting work.

### EXAMPLE OF DUTIES

Assists in the design of roads, channels, bridges, pipelines and other flood control related facilities using AutoCAD. Assists in the preparation of construction specifications, bid documents, work orders, and agreements. Assists in the preparation of cost estimates and prioritization of proposed flood control and roadway projects.

Assists in checking engineering design data for subdivision review, project design, including hydraulic calculations on storm drainage flow, open channel water surface and design flow/storm routing. Help with plan and profile calculations, engineers and cost estimates for various items and projects.

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

Provides construction management for Public Works facilities, including shops, office buildings, roads, bridges, parking lots, and flood control related facilities such as culverts and channels. Under the direction of a crewleader, works with equipment operators, truck drivers, and laborers to construct roads and flood control facilities.

Manages comprehensive flood control and inter-agency permit program. Reviews applications/requests for County flood permits; issues County flood permits and provides construction management for each permit; maintains and updates records and information. Prepares application for State Joint Flood Control Permits as needed by the County to construct a flood control project on State waterways. Attends meetings when issues of permitting and compliance are reviewed.

Assists in managing the Excavation Permit program, including processing applications, field reviews, and ensuring permit compliance.

Develops guidelines for Stream Alteration/Maintenance, permits for US Army Corps of Engineers Wetland applications, checklists for Illicit Discharge and Erosion Control Ordinance, and specifications for contractor projects and County crew operations.

Maintains records for MS4 compliance. Works with Director and engineering staff to ensure the MS4 permit regulations are being met. Ensures county participation in the Storm Water Coalition.

Researches historical documents and Federal Emergency Management Agency maps on various County flood control projects; researches and maps all existing flood control easements and drainage channels in Davis County.

Assists County GIS staff to plat flood control facilities.

Organizes Media Center files, records, maps documents, drawings for electronic record scanning. Access information to assist with creek and easement inventories. Review publications from Federal, State, County, Cities and major organizations concerning regulations and related programs.

Trains other employees to use the GPS, total station, levels and AutoCAD equipment. Assists Engineering Aides with easement and channel inventory mapping and project details.

Performs field measurements of all piezometer at dams and other flood control facilities, records data on State web site; reviews files and records for specific historical items regarding local cities and prepare reports to the State.

Assists and works with other Public Works employees to operate the Weather Alert System.

Responds to various complaints from the public verbally or in writing concerning violations, hazards dealing with roads, flooding, property encroachment and disputes.

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

Performs other related duties as assigned.

### MINIMUM QUALIFICATIONS

**1. Education and Experience:**

Graduation from high school and two (2) years of college level or technical school course work in a closely related field, plus three (3) years of full-time computer-aided drafting experience, or an acceptable combination of related education/training and experience.

**2. Special Requirements:**

Employees driving a personal or a County vehicle for job related travel must possess a valid driver license, maintain the minimum vehicle liability insurance as specified in the Utah Code, 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).

**3. Necessary Knowledge, Skills and Abilities:**

**Knowledge of:** AutoCAD drafting software; basic algebra and geometry principles and adaptability to higher math skills; surveying and engineering principles including the use of instruments and terminology; construction surveying. Entry-level knowledge of site design software that runs in AutoCAD software.



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**Skill in:** proficiently using surveying equipment; computer hardware and software including AutoCAD, MS Word, and other applicable software programs.

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:** efficiently operate applicable computer hardware and software; read and interpret construction plans, maps, and survey field notes; perform complex math computations; 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.

The above statements are intended to describe the general nature and level of work being performed by persons assigned to this job. They are not intended to be an exhaustive list of all duties, responsibilities and skills required of personnel so classified. ***All requirements are subject to possible modifications to reasonably accommodate individuals with disabilities.***