

## Alternative Job Titles

Construction Engineer, Construction Project Manager, Roadway Project Engineer

## Job Description

A Highway Construction Engineer is responsible for overseeing roadway projects to completion, on time and within budget. Duties include field layout of projects, general inspection, project management, working with staff, and communicating with clients. The Engineer may be called upon to assist in design engineering duties including: preparing reports, plans, and specifications; researching design standards and code requirements; and conducting field investigations of design problems. The Engineer collaborates with other engineers, technicians, planners, and surveyors. Other duties include:

- Control and/or review all project forecasts, schedules, cost estimates, and reports.
- Prepare construction cost estimates, project budgets, schedules, or specifications for labor or materials.
- Prepare reports and conduct studies of engineering methods, codes, processes, and materials.
- Participate in contract bidding, negotiation, or administration.
- Responsible for quality control. Investigate or test construction materials to determine compliance with specifications or standards including environmental standards.
- Inspect completed transportation projects to ensure safety or compliance with applicable standards or regulations including environmental regulations.
- Confer with contractors, utility companies, and the public.
- Conduct feasibility and operating studies aimed at evaluating alternative innovative designs.
- Develop plans to deconstruct damaged or obsolete roadways or other transportation structures.

## Knowledge Requirements

- Road and bridge construction processes
- Construction equipment operations
- Project development process
- Project management
- Estimating and scheduling
- Contract management
- Quality assurance and control
- Occupational safety and health

## Required Skills & Abilities

- Ability to deal with construction contractors
- Conflict resolution
- Building effective relationships
- Problem-solving
- Time management
- Self-starter
- Teamwork/collaboration
- Organizing, scheduling, and coordinating
- Written and oral communication

## Technical Skills Requirements

- Engineering software such as Primavera and Microsoft Project, FieldManager, Civil3D, MicroStation, and InRoads
- Augmented reality and virtual reality applications such as Microsoft HoloLens

## Typical Salary

- \$70,900 – \$151,000

*\*Sources: Burning Glass Labor Insights for salaries by experience and Glassdoor for upper and lower salary bounds*

## Education & Work Experience

- Bachelor's degree in civil engineering with emphasis on transportation or construction.
- Three to five (3 to 5) years of construction engineering experience on roads and/or bridges.
- Licensed Professional Engineer (P.E.)