



# Connecticut



## Department of Transportation

### CAREERS IN ENGINEERING

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The Connecticut Department of Transportation (CTDOT) offers a variety of transportation-related career opportunities for entry level engineers in our Offices of Engineering and Construction, including traffic engineering, transportation design, and construction. Opportunities also exist in our Bureau of Policy & Planning and Bureau of Public Transportation.

### **TRANSPORTATION ENGINEER TRAINEE**

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CTDOT is aggressively recruiting applicants with Engineering and Construction Management degrees, for Transportation Engineer Trainee positions throughout the State of Connecticut. To be eligible for hire at the Transportation Engineer Trainee level, a Bachelor's degree in Engineering or Construction Management from an accredited college or university is a minimum requirement.

***Starting Salary: \$70,857/yr***

***40 Hour Work Week***

***Excellent Benefits Package***

***On-the-job Training***

***Advancement Opportunities***

### **TRANSPORTATION ENGINEER 1 AND 2**

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To be eligible for hire at the Transportation Engineer 1 or 2 level, a Bachelor's degree in Engineering or Construction Management from an accredited college or university is required, along with industry work experience. Please refer to the State of CT jobs website: [www.jobapscloud.com/CT](http://www.jobapscloud.com/CT) for additional information.

## TRAFFIC ENGINEERING CAREERS

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Traffic Engineering offers the entry level and advanced engineer exposure to stimulating work assignments to enhance their engineering skills.

Engineers in the Division of Traffic:

- Conduct traffic engineering studies
- Perform traffic flow analyses utilizing state-of-the-art engineering methods and computer software programs
- Develop designs for traffic signal systems and traffic control signals
- Review major commercial developments for their effect on highway operations

## CONSTRUCTION CAREERS

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### ***Construction***

Construction inspection is one of the most important phases of construction work. It requires careful review and critical examination of all facets of the project.

Inspectors assure that the proper materials are used, the plans and specifications are followed, and the finished product is a valued improvement to Connecticut's transportation infrastructure. As a construction inspector you may be assigned to one of the District Offices in Rocky Hill, Norwich, New Haven or Thomaston. Inspectors are the people onsite making sure that the bridges are built right, the pavement is installed to last, and vehicles can move safely through our work zones.

## *Surveys*

No project can begin without accurate survey and layout. As a CTDOT surveyor you'll use state-of-the-art technology including GPS, Total Station and CADD. Surveyors work in varied terrain conditions collecting data to establish boundaries, elevations, control points and benchmarks. They also work on an array of projects in the related surveying and mapping fields of geodesy, GIS and photogrammetry. If you like attention to detail, and enjoy working outdoors and at a computer, these fields could be the perfect fit.

## **HIGHWAY DESIGN CAREERS**

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Highway engineers have the challenge to not only improve Connecticut's transportation system to meet operational and safety needs, but also to balance this against environmental, historic, cultural, community, aesthetic, and economic impacts.

Engineers in the Division of Highway Design:



- Develop projects that improve the safety, capacity, and efficiency of the State's transportation system
- Find solutions to challenging roadway and multi-modal improvement problems
- Evaluate design alternatives to ensure the best designs
- Utilize CADD and other cutting-edge computer technology to perform a wide variety of technical analysis, including geometrics, drainage, and cost estimating
- Make multi-media presentations of projects to municipalities, residents, businesses and the public

- Provide technical engineering support during the construction of projects
- Have a challenging work environment, and excellent training to improve technical and communication skills

## **BRIDGE DESIGN CAREERS**

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Engineers in the Division of Bridges work with a variety of transportation structures as well as:

- Use advanced analysis software and CADD technology to prepare designs including geometrics, drainage, structural analysis and creating bid documents
- Perform cost estimating
- Design and create contract documents for a variety of bridge structures, traffic structures, and roadway structures
- Oversee and administer projects from project concept, through design, to construction
- Prepare environmental permits and coordinate with both municipalities and utilities entities
- Review and approve shop and working drawings for projects in construction, and work with fabricators and contractors to facilitate construction and to ensure contract compliance
- Provide construction support when problems arise during construction and prepare change orders
- Fully inspect bridges to address the safety, capacity, and efficiency of the State's Bridge infrastructure

- Design new bridges and rehabilitate and preserve deteriorating bridges
- Perform bridge load ratings to determine the safe carrying capacity of bridges
- Carry out detailed hydraulic analysis and review analysis done by outside parties
- Manage projects and programs designed by consultant firms

## **POLICY & PLANNING CAREERS**

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Engineers and Planners in the Bureau of Policy and Planning perform a wide range of Planning functions. Areas and their responsibilities include:

### ***Environmental Planning:***

- Environmental Impact Statements and Assessments for major transportation projects
- Historic and archeological documentation, wetland, natural resources, water quality and noise studies
- Environmental construction and stormwater compliance

### ***Intermodal Planning:***

- Highway location plans and layouts
- State Rail Plan
- Bicycle and pedestrian facilities
- Transit planning for rail and bus

### ***Policy Planning:***

- State Strategic Transportation Plan
- State and federal transportation-related legislation / regulations
- “Green” concepts such as alternative fuel vehicles and transportation sustainability

### ***Coordination, Modeling and Crash Data:***

- Crash data reporting
- Computerized highway and transit transportation networks
- Forecasting travel and travel characteristics
- Traffic and ridership forecasting and analysis
- Transportation plans and programs with regional planning agencies and local officials

### ***Roadway Information Systems:***

- Operate state-of-the-art automated data collection vehicles to collect high-definition images and roadway condition and position data for the 4000-mile State maintained roadway network.

## **PUBLIC TRANSPORTATION CAREERS**

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Engineers assigned to the Bureau of Public Transportation are responsible for developing and implementing programs that provide bus transit service, passenger and freight rail service, and ridesharing programs for the movement of people and goods in Connecticut.

Engineers within the Office of Rail, Intermodal Design, Construction, Maintenance and Operation:

- Develop/implement programs to ensure the safety of railroad bridges and other structures
- Oversee the design and construction of rail infrastructure including bridges, stations, track, railroad electrification, and railroad signalization
- Oversee the maintenance of the State's railroads by our service providers
- Coordinate Rail operations between various railroads statewide

## **MATERIALS TESTING CAREERS**

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The goal of any CTDOT Engineer is to build safe and durable roads and structures. The use of quality materials is a critical factor in meeting that goal. Engineers and technicians within CTDOT's nationally accredited laboratory in the Division of Materials Testing:

- Use the latest technology and techniques to test aggregates, concrete, steel, and asphalt
- Evaluate material sources used throughout the State
- Analyze trends in test results and take a proactive stand to avoid the use of substandard materials
- Review, evaluate, and approve Portland Cement concrete and asphalt mix designs using state-of-the-art technologies
- Review drawings and inspect complex structural steel and precast concrete girders being built in facilities throughout the Northeast

## **BENEFITS ARE PART OF YOUR COMPENSATION**

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When thinking about a job, considering the salary and the benefits offered by an employer is important. State of Connecticut fringe benefits are among the best in the country, including paid time off, education and training programs, advancement opportunities and employment opportunities across the state.

Listed below are just some of the benefits offered:

- Alternative Work Schedule
- 40-hour work week
- 12 Paid Holidays
- Vacation & Sick Leave
- Personal Leave
- Family Medical and Maternity Leave
- Paid Jury Duty Leave
- Funeral Leave
- Health & Dental Insurance
- Life Insurance
- Short & Long Term Disability
- Retirement Plan (including retiree health and dental insurance)
- Deferred Compensation (retirement investments)
- Career Mobility within the Department of Transportation and State of Connecticut
- Tuition Reimbursement

## **LEARN ABOUT AND APPLY FOR JOBS**

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Sign up to be alerted by email when jobs of interest to you are posted at [www.jobapscloud.com/CT](http://www.jobapscloud.com/CT). Simply click on “Interest Cards” to create a Job Search Agent. To be alerted about Engineering positions at CTDOT, check the Engineering occupational group then select “Transportation Engineer Trainee (40 Hour)” and any other jobs of interest.

At [www.jobapscloud.com/CT](http://www.jobapscloud.com/CT) you can also view current job postings, fill out a job application and apply for jobs.



[www.jobapscloud.com/CT](http://www.jobapscloud.com/CT)

Go to [www.jobapscloud.com/CT](http://www.jobapscloud.com/CT) for information about applying for State jobs, to view current job postings and job descriptions, and apply for State jobs.



For general questions about Engineering careers at CTDOT contact the Human Resources office at: [jackie.ouellette@ct.gov](mailto:jackie.ouellette@ct.gov)

#### MISSION STATEMENT

The mission of the Connecticut Department of Transportation is to provide a safe and efficient intermodal transportation network that improves the quality of life and promotes economic vitality for the State and the region.

*An Affirmative Action/Equal  
Opportunity Employer*