



## Transportation Surveyor (Caltrans)

**Exam Code: 3PB60**

**Department:** State of California  
**Exam Type:** Departmental, Open  
**Final Filing Date:** Continuous

### CLASSIFICATION DETAILS

**Transportation Surveyor (Caltrans)** – A: \$4,974.00 - \$6,224.00 per month.  
B: \$5,837.00 - \$7,303.00 per month.  
C: \$6,751.00 - \$8,447.00 per month.  
D: \$7,631.00 - \$9,548.00 per month.

View the [classification specification](#) for the Transportation Surveyor (Caltrans) classification.

### APPLICATION INSTRUCTIONS

Final Filing Date: Continuous

#### **Who Should Apply:**

Applicants who meet the minimum qualifications as stated on this bulletin may apply for and take this examination.

Once you have taken this examination, you may not retake it for **12 months**.

#### **How To Apply:**

The link to connect to the Training and Experience Evaluation is located farther down on this bulletin in the “Taking the Exam” section.

#### **Special Testing Arrangements:**

If you require assistance or alternative testing arrangements due to a disability, please contact the testing department listed in the Contact section of this bulletin.

## MINIMUM QUALIFICATIONS

All applicants must meet the education and/or experience requirements as stated on this exam bulletin to be accepted into the examination. Part-time or full-time jobs, regardless of whether paid or volunteer positions, and inside or outside California state service will count toward experience.

### Transportation Surveyor (Caltrans)

Graduation from a four-year curriculum in surveying, surveying engineering, or surveying geomatics accredited by the Accreditation Board for Engineering Technology. (Registration as a “Senior” in such a curriculum will admit an applicant to the competition, but applicants must produce evidence of graduation before considered eligible appointment.)

(Possession of a valid certificate as a Land Surveyor in Training issued or accepted by the California Board of Registration for Professional Engineers and Land Surveyors or possession of a valid certificate as an Engineer in Training accepted by the California Board of Registration for Professional Engineers and Land Surveyors in lieu of a certificate as a Land Surveyor in Training may be substituted for the required education.)

## POSITION DESCRIPTION

### Transportation Surveyor (Caltrans)

This is the entry, first working, and journey level of professional surveying work in Caltrans. Under the direction of a licensed land surveyor, incumbents perform a wide variety of professional land surveying work in either an office or field setting; as incumbents progress in experience, they will be assigned more difficult work and may function as a lead person over the activities of various surveying and technical personnel in the office or field. At the journey level and with a license, the incumbent will work in a responsible charge capacity.

## EXAMINATION SCOPE

This examination consists of the following components:

**Training and Experience Evaluation** – Weighted 100% of the final score.

The examination will consist solely of a **Training and Experience Evaluation**. To obtain a position on the eligible list, a minimum score of 70% must be received. Applicants will receive their score upon completion of the Training and Experience Evaluation process.

In addition to evaluating applicants' relative knowledge, skills, and ability, as demonstrated by quality and breadth of education and/or experience, emphasis in each

exam component will be measuring competitively, relative job demands, each applicant's:

**Knowledge of:**

1. The principles and provisions of the Land Surveyors' Act and Subdivision Map Act to ensure that land surveying activities and reporting/documentation activities conform to legislative requirements.
2. Land survey methodology and principles to ensure that land survey work conducted adheres to appropriate standards and practices of land surveying.
3. The California Coordinate System and its different types of data to plan land survey activities, interpret, and calculate land survey data.
4. Safe surveying practices to ensure that land surveying activities are performed in a safe manner.
5. Basic engineering terms to understand and communicate effectively about the land survey and right of way engineering activities pertinent to highway/transportation projects.
6. Drafting principles and concepts related to the design and presentation of land survey data to ensure accuracy in accordance with recognized drafting/design principles.
7. Mapping principles related to the design, preparation, and presentation of maps and drawings to accurately depict property lines and topography according to standards.
8. Mathematical principles (algebra, geometry, trigonometry, and statistical analysis) to calculate and solve mathematical equations in the course of completing land surveying tasks and analyses.
9. Units of measurements (e.g., feet, miles, acres, meters) to conceptualize and calculate distances, areas, volumes, amounts, and quantitative data based upon a common frame of reference.
10. The use and operation of surveying instruments and accessories (e.g., total stations, data loggers, fore/back sights, digital levels, global Positioning System (GPS)/Global Navigation Satellite System (GNSS) receivers, and terrestrial scanners) to ensure correct set up, installation, and use of field equipment for accurate, precise, and reliable data collection.
11. Boundary determination principles pertaining to right of way surveying to ensure that the land survey data collected is properly interpreted and accurately represents property boundaries and easements.
12. The format and content of real property legal descriptions in order to read, understand, and interpret land area/property descriptions, locations, and boundaries contained in legal descriptions of real property.

13. Data collection techniques and considerations to ensure that the data collected through a variety of techniques (e.g., field measurement and review of historical records) is accurate and complete.
14. The rules, grammar, punctuation, and sentence structure to ensure that written materials prepared and those reviewed are complete, succinct, and free of writing errors.
15. Safety issues and considerations related to working in and around vehicular traffic and moving vehicles, including construction equipment and vehicles.
16. Safety provisions applicable to surveying activities and data collection procedures to ensure that surveying activities are performed in a safe manner.
17. Proper body mechanics and ergonomic principles applicable to lifting, bending, stooping, and reaching to ensure that such motions/moves made in the course of completing work tasks are performed safely and appropriately.

**Ability to:**

1. Integrate multiple facts, statistics, and/or mathematical values when solving complex mathematical problems to ensure that calculations performed and results obtained are accurate and appropriate to the situation.
2. Apply land surveying concepts and principles when solving complex mathematical/engineering equations.
3. Apply algebra, geometry, trigonometry, and statistical analysis concepts and principles to solve complex mathematical/surveying equations.
4. Read measuring tapes using US and metric units of measure to ensure accurate calculations.
5. Analyze survey data to formulate right of way documentation, locate topographical land features, and determine the accuracy and completeness of survey data collection techniques and activities.
6. Organize and compile survey data and information to ensure the accuracy, clarity, and conciseness of the documentation for the projects.
7. Recognize the ramifications and possible impact of decisions made or actions taken to determine the most appropriate course of action given specific circumstances of the situation.
8. Follow established safety procedures and protocols outlined in the DOT Safety Manual to complete assigned work tasks.
9. Use word processing software to prepare reports, memos, correspondence, and other job-related documents and materials.
10. Use electronic mail to communicate with audiences on matters related to transportation projects and issues.
11. Prioritize work tasks according to short-term demands and long-range goals and objectives.
12. Work independently to complete day-to-day work activities with minimal hands-on supervision.
13. Communicate orally to a variety of audiences in a concise and coherent manner.

14. Establish and maintain collaborative working relations with superiors, peers, support staff, staff from outside agencies, contractors, and the public.
15. Concisely summarize facts and information to ensure that information presented is clear and conveyed appropriately for the particular audience.
16. Read and comprehend a variety of departmental manuals, procedures, and guidelines, (e.g. Surveys Manual, the Right of Way Manual, the Drafting Manual, the Safety Manual) to ensure appropriate application and adherence in planning and completing land survey and right of way engineering activities.
17. Read and comprehend a variety of technical materials (e.g., manufacturers' instructional manuals, reference guides and instructions, and equipment specifications) to ensure the proper installation, operation, and use of surveying instruments and equipment.
18. Read and interpret a variety of documents related to property conveyances (e.g. deeds, judicial partitions, indentures, and title reports) to ensure that such information is considered and applied appropriately in the completion of survey and right of way engineering activities.
19. Read and understand construction plans and specifications to determine scope and parameters of assigned survey projects and activities and ensure compliance with project plans and specifications.
20. Read and understand staking notes to ensure proper placement of the stakes and to use the data for additional land surveying activities and data verification.
21. Read and understand maps and drawings depicting specific locales/regions to determine location, topographic characteristics, and other related information.
22. Operate a motorized vehicle safely in accordance with the California vehicle code.
23. Traverse uneven terrain in order to collect survey data.
24. Stand for prolonged periods of time.
25. Sit for long periods of time using a keyboard and monitor.
26. Move 30 pounds from one location to another.
27. Crawl or stoop to perform survey fieldwork.
28. Drive or ride for long periods of time in vehicle to various survey locations.
29. Operate large and heavy hand tools (e.g., sledgehammer, machete, shovel, digging bar).

**Willingness to:**

1. Work in areas next to moving traffic
2. Travel for extended periods of time (i.e., several nights) to conduct survey work in various project locations
3. Work under various weather climates while performing field activities.

**ELIGIBLE LIST INFORMATION**

A departmental, open eligible list for the **Transportation Surveyor (Caltrans)** classification will be established for:

**Department of Transportation**

Bulletin Date: 7/25/2018

The names of **successful** competitors will be merged onto the eligible list in order of final score regardless of exam date. Eligibility expires **12 months** after it is established. Applicants must then retake the examination to reestablish eligibility.

Veterans' Preference will be granted for this examination. In accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, or widow or widower of a veteran achieves a passing score on an open examination, he or she shall be ranked in the top rank of the resulting eligible list.

Veterans status is verified by the California Department of Human Resources (CalHR). Information on this program and the Veterans' Preference Application (Std. 1093) is available [online](#). Additional information on veteran benefits is available at the Department of Veterans Affairs.

**Career Credits will not be added to the final score for this exam, because it does not meet the requirements to qualify for Career Credits.**

## EXAMINATION INFORMATION

[Preview Training and Experience Evaluation](#) for the Transportation Surveyor (Caltrans) classification.

## PREPARING FOR THE EXAMINATION

Here is a list of suggested resources to have available prior to taking the exam.

**Employment History:** Employment dates, job titles, organization names and addresses, names of supervisors or persons who can verify your job responsibilities, and phone numbers of persons listed above.

**Education:** School names and addresses, degrees earned, dates attended, courses taken (verifiable on a transcript), persons or office who can verify education, and phone numbers of persons or offices listed above.

**Training:** Class titles, certifications received, names of persons who can verify your training, and phone numbers of persons listed above.

## TAKING THE EXAMINATION

Take the online [Training and Experience Evaluation](#) for the **Transportation Surveyor (Caltrans)** classification.

## TESTING DEPARTMENTS

Department of Transportation

## **CONTACT INFORMATION**

If you have any **technical** questions concerning this examination bulletin, please contact:

### **California Department of Human Resources**

Attn: Examination Services

1515 S Street

Sacramento, CA 95811

Phone: 1-866-844-8671

California Relay Service: 1-800-735-2929 (TTY), 1-800-735-2922 (Voice)

If you have any **administrative** questions concerning this examination bulletin, please contact:

### **California Department of Transportation**

Office of Examinations and Recruitment Services

P.O. Box 168036, MS 86

Sacramento, CA 95816-8036

(916) 227-7858

California Relay Service: 1-800-735-2929 (TTY), 1-800-735-2922 (Voice)

TTY is a Telecommunications Device for the Deaf, and is reachable only from phones equipped with a TTY Device.

## **EQUAL OPPORTUNITY EMPLOYER**

The State of California is an equal opportunity employer to all, regardless of age, ancestry, color, disability (mental and physical), exercising the right of family care and medical leave, gender, gender expression, gender identity, genetic information, marital status, medical condition, military or veteran status, national origin, political affiliation, race, religious creed, sex (includes pregnancy, childbirth, breastfeeding, and related medical conditions), and sexual orientation.

## **DRUG-FREE STATEMENT**

It is an objective of the State of California to achieve a drug-free State work place. Any applicant for State employment will be expected to behave in accordance with this objective, because the use of illegal drugs is inconsistent with the law of the State, the rules governing civil service, and the special trust placed in public servants.

## GENERAL INFORMATION

Examination and/or Employment Application (STD 678) forms are available at the California Department of Human Resources, local offices of the Employment Development Department, and through your [CalCareer Account](#).

If you meet the requirements stated on this examination bulletin, you may take this examination, which is competitive. Possession of the entrance requirements does not assure a place on the eligible list. Your performance in the examination described in this bulletin will be rated against a predetermined job-related rating, and all applicants who pass will be ranked according to their score.

The California Department of Human Resources (CalHR) reserves the right to revise the examination plan to better meet the needs of the service, if the circumstances under which this examination was planned change. Such revision will be in accordance with civil service laws and rules and all applicants will be notified.

**General Qualifications:** Applicants must possess essential personal qualifications including integrity, initiative, dependability, good judgement, the ability to work cooperatively with others, and a state of health consistent with the ability to perform the assigned duties of the class. A medical examination may be required. In open examinations, investigation may be made of employment records and personal history and fingerprinting may be required.

**Eligible Lists:** Eligible lists established by competitive examination, regardless of date, must be used in the following order: 1) sub-divisional promotional, 2) departmental promotional, 3) multi-departmental promotional, 4) servicewide promotional, 5) departmental open, 6) open. When there are two lists of the same kind, the older must be used first. Eligible lists will expire in one to four years unless otherwise stated on the bulletin.

**High School Equivalence:** Equivalence to completion of the 12<sup>th</sup> grade may be demonstrated in any one of the following ways: 1) passing the General Education Development (GED) Test; 2) completion of 12 semester units of college-level work; 3) certification from the State Department of Education, a local school board, or high school authorities that the competitor is considered to have education equivalent to graduation from high school; or 4) for clerical and accounting classes, substitution of business college work in place of high school on a year-for-year basis.