



Transportation Surveyor (Caltrans)

Class Code: 3029 – Exam Code: 3PB60

Department(s): Department of Transportation
Final Filing Date: Ongoing – Continuous
Type of Examination: Departmental-Open
Monthly Ranged Salary: \$4,876.00 - \$9,361.00
(See full ranges under Salary Information)

EEO

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.

WHO SHOULD APPLY?

Applicants who meet the Minimum Qualifications as stated on this bulletin may apply for and take this Training and Experience Evaluation at any time.

Once you have taken the Training and Experience Evaluation, you may not retake it for 12 months.

FILING INSTRUCTIONS

Final Filing Date: Continuous

Where to Apply: Click the link at the bottom of this bulletin.

SPECIAL TESTING ARRANGEMENTS

If you have a disability and need special assistance or special testing arrangements, contact the California Department of Human Resources (CalHR), Examination Services at (866) 844-8671, or via the California Relay Service for the Deaf or Hard of Hearing at (800) 735-2929 from TTY Phones and (800) 735-2922 from voice phones.

SALARY INFORMATION

Monthly Ranged Salary: A - \$4,876.00 to \$6,102.00
B - \$5,723.00 to \$7,160.00
C - \$6,619.00 to \$8,281.00
D - \$7,481.00 to \$9,361.00

ELIGIBLE LIST INFORMATION

An open, merged eligible list will be established by the California Department of Human Resources for use by the Department of Transportation. The names of successful competitors will be merged onto the eligible list in order of final score regardless of test date. **Eligibility expires 12 months after it is established.** Competitors must then retake the Training and Experience Evaluation to reestablish eligibility.

REQUIREMENTS FOR ADMITTANCE TO THE EXAMINATION

NOTE: All applicants must meet the education and/or experience requirements as stated on this examination bulletin as of the date the test is taken.

MINIMUM QUALIFICATIONS

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 being considered eligible for 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

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 INFORMATION

TRAINING AND EXPERIENCE EVALUATION – Weighted 100%

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. An applicant will receive his/her score upon completion of the Training and Experience Evaluation process.

[Click here to preview the Training and Experience Evaluation.](#)

KNOWLEDGE AND ABILITIES

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 of 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:

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

VETERANS' PREFERENCE

Veterans' Preference will be granted for this examination. Effective January 1, 2014, in accordance with Government Codes 18973.1 and 18973.5, whenever any veteran, widow or widower of a veteran, or spouse of a 100 percent-disabled veteran achieves a passing score on an open examination, he or she shall be ranked in the top rank of the resulting eligibility list. This section shall not apply to any veteran who has been dishonorably discharged or released.

CAREER CREDITS

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.

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.

GENERAL INFORMATION

Applications are available at www.jobs.ca.gov and local offices of the Employment Development Department.

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 on this bulletin will be rated against a predetermined job-related rating, and all candidates who pass will be ranked according to their scores.

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

Candidates needing special testing arrangements due to a disability must mark the appropriate box on the application and contact the testing department.

Hiring Interview Scope: In a hiring interview, in addition to the scope described in this bulletin, the panel will consider education, experience, personal development, personal traits, and fitness. In appraising experience, more weight may be given to the breadth and recency of pertinent experience, and evidence of the candidate's ability to accept and fulfill increasing responsibilities than to the length of his/her experience. Evaluation of a candidate's personal development will include consideration of his/her recognition of his/her own training needs; his/her plans for self-development; and the progress he/she has made in his/her efforts toward self-development. For more information, you may refer to the classification specification <http://www.calhr.ca.gov/state-hr-professionals/pages/3029.aspx>.

General Qualifications: Candidates must possess essential personal qualifications including integrity, initiative, dependability, good judgment, 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) service-wide promotional, 5) departmental open, and 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.

Veterans' Preference: Effective January 1, 2014, in accordance with Government Codes 18973.1 and 18973.5, Veterans' Preference will be awarded as follows: 1) Any veteran, widow or widower of a veteran, or spouse of a 100 percent disabled veteran, who achieves a passing score in an entrance examination, shall be ranked in the top rank of the resulting eligibility list. Any veteran who has been dishonorably discharged or released is not eligible for Veterans' Preference. 2) An entrance examination is defined, under the law, as any open competitive examination. And 3) Veterans' Preference is not granted once a person achieves permanent civil service status.

Veteran status is verified by the California Department of Human Resources (CalHR). Directions to apply for Veterans' Preference are on the Veterans' Preference Application (Std. Form 1093), which is available at <https://jobs.ca.gov/Public/Jobs/Veterans.aspx>, and the Department of Veterans Affairs.

TAKING THE EXAM

When you click the link below, you will be directed to the Training and Experience Evaluation. At the end of the Training and Experience Evaluation, it will be instantly scored.

[Click here to go to the Training and Experience Evaluation.](#)