

POSITION DUTY STATEMENT

DOT PM-0924 (REV 08/2024)

CLASSIFICATION TITLE Transportation Engineer Tech	OFFICE/BRANCH/SECTION District 2 /Maintenance & Ops/ Roadside Maintenance	
WORKING TITLE Culvert Inspection Technician	POSITION NUMBER 902-605-3175-	REVISION DATE

As a valued member of the Caltrans leadership team, you make it possible for the Department to provide a safe and reliable transportation network that serves all people and respects the environment.

GENERAL STATEMENT:

Under the general supervision of the superintendent over the culvert inspection program, this position is responsible for performing a variety of culvert inspection, miscellaneous labor and other transportation related work associated with the Districts Culvert Inspection Program. Job assignments may be subject to, changes in work shift, work hours and workdays, and will require fieldwork and overnight travel within the district. This position requires working independently and as a team leader within the structure of the Caltrans culvert inspection program.

CORE COMPETENCIES:

As a Transportation Engineer Tech, the incumbent is expected to become proficient in the following competencies as described below in order to successfully perform the essential functions of the job, while adhering to and promoting the Department's Mission, Vision, Values, Strategic Imperatives and Goals. Effective development of the identified Core Competencies fosters the advancement of the following Leadership Competencies: Change Commitment, Risk Appetite, Self-Development/Growth, Conflict Management, Relationship Building, Organizational Awareness, Communication, Strategic Perspective, and Results Driven.

- **Creativity and Innovation:** Thinks beyond the confines of traditional models to recognize opportunities, seek creative solutions and take intelligent risks. (Safety First, Cultivate Excellence - Innovation, Integrity, Pride)
- **Dealing with Ambiguity (Risk):** Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Cultivate Excellence - Pride)
- **Reliability:** Ability to demonstrate dependability in meeting commitments, and providing a consistent work product. Takes responsibility for individual actions in order to meet deadline demands. (Strengthen Stewardship and Drive Efficiency - Pride)
- **Problem-solving and Decision-making :** Identifies problems and uses logical analysis to find information, understand causes, and evaluate and select or recommend best possible courses of action. (Cultivate Excellence - Engagement, Innovation)
- **Teamwork/Partnership:** Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Customer Focus:** Considers, prioritizes, and takes action on the needs of both internal and external customers. (Cultivate Excellence - Integrity, Pride)
- **Communication:** Expresses oneself clearly in all forms of communication. Gives feedback and is receptive to feedback received. Knows that listening is essential. Keeps others in the Division and other functional units informed as appropriate. (Strengthen Stewardship and Drive Efficiency - Engagement)
- **Planning and Results Oriented:** Organizes and executes work to meet organizational goals and objectives while meeting quality standards, following organizational processes, and demonstrating continuous commitment. (Safety First - Innovation, Integrity, Pride)
- **Diagnostic Information Gathering:** Identify information needed to clarify a situation, seeking that information from appropriate sources. (Cultivate Excellence - Integrity, Pride)

TYPICAL DUTIES:

Percentage	Job Description
Essential (E)/Marginal (M) ¹	
25% E	The incumbent acts in maintaining and developing District 2's culvert database. Performs post processing and quality control of culvert inventory data collected in the field utilizing computer software. Uploads processed culvert inventory data into the culvert database. The incumbent acts to improve the database through training, service contracts, and working with Headquarters Staff. The incumbent will frequently communicate and provide culvert inventory related information and data to District 2 GIS coordinators, management and other personnel in Design, Hydraulics, Field Maintenance, Construction, and HQ staff. The incumbent shall coordinate efforts and field operations with Maintenance Supervisors when working within their maintenance areas.

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25%	E	The incumbent conducts culvert inspections in the field throughout the district utilizing the district's remote camera, documents, prepares culvert reports, and organizes and assures integrity of the photos and files collected in the field pertinent to drainage systems. The incumbent must have practical field experience in highway maintenance techniques. The incumbent must be able to identify culvert maintenance strategies and types of culvert defects that lead to structural failure. The incumbent must be able to identify the condition of culverts and drainages on the State highway system regarding potential impacts that might damage adjacent property, property downstream or endanger life. The incumbent must have the ability to lift the 80-lb. culvert crawler repeatedly, be physically capable of using han
25%	E	The incumbent is required to properly operate, maintain, and care for GPS and data collection equipment used to identify and rate drainage system conditions where needed. The GPS information shall be maintained on a database and shared with others such as GIS coordinator and Headquarters personnel on a regular basis when needed.
10%	E	The incumbent shall maintain the culvert van making sure the equipment receives all scheduled services and PM's and that the equipment is in good operating condition prior to field work. The incumbent is also responsible to assure all equipment assigned is properly used and maintained and records kept up to date. The incumbent may coordinate and assist with purchases or purchase requests in order to maintain or repair support equipment. The incumbent performs basic, minimal handwork related to culvert inspection. The use of small chain saws, loppers, shovels, picks, culvert pullers and other related equipment to gain access to culvert openings is required.
5%	E	Conducts field inspections of existing drainage/culvert structures during storms or other events and keeps records of damage to roads and drainage/culvert structures. Coordination is also required in conjunction with the GIS Coordinator and other functions to review sites and develop action plans.
5%	E	The incumbent will be responsible to conduct minor repairs to the crawler and cabling when needed. The incumbent will ensure that all field persons comply to the Caltrans Maintenance Manual, Code of Safe Operating Practices, and worker protection guidelines while on field duty
5%	M	Administer departmental policy and procedures. Answer employee and public questions regarding maintenance policy and procedure with tact and courtesy. Ensure departmental policy and procedure is being carried out.

¹ESSENTIAL FUNCTIONS are the core duties of the position that cannot be reassigned.

MARGINAL FUNCTIONS are the minor tasks of the position that can be assigned to others.

SUPERVISION OR GUIDANCE EXERCISED OVER OTHERS

The incumbent does not supervise other employees but may have lead worker responsibility (at times) over other field staff.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Knowledge of methods, materials, tools, and equipment used in the inspection, construction, and maintenance of highway drainage facilities. Knowledge of the operation and care of automotive and highway maintenance equipment. An ability to use a computer and software and learn GPS units and computer software including ArcView GIS (Global Information System), Word and Excel. Ability to communicate effectively orally and in writing. Ability to organize and prioritize work including analyzing situations accurately and develop effective course of actions. Ability to assist in investigations, reach sound conclusions and prepare reports for making improvements or changes to existing procedures and standards, when necessary. The incumbent must be able to follow and/or expand on the practical application of written policies, procedures, and standards. Ability to read and write English at a level required for successful job performance. Must be able to interpret departmental policy. The incumbent shall make valid decisions for the various culvert related duties. The incumbent must be able to gather, assimilate and analyze all pertinent data relating to the subject. Must be able to evaluate maintenance operations, evaluate procedures utilizing current and state of the art culvert inspection equipment, and suggest new procedures for field crews to implement. Incumbent must be able to analyze situations for correct decisions and/or recommendations on very short notice. Must be capable of understanding basic engineering solutions in drainage design and determining alternatives that provide the most viable solution while considering maintenance, engineering, political and economic issues.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Responsible for independent action in carrying out assigned duties relating to policy development of maintenance functions.

The consequences of not considering all factors could be inconsistent or inappropriate policy setting, inappropriate application of maintenance methods, non-compliance with permits and plans.

Failure to understand and incorporate appropriate standards, requirements and policies into work product may result in harm to

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the environment, excess costs to the Department and damage to the district's relationship with other agencies. The incumbent is responsible for his/her actions, decisions, quality of work, and proper use of State time, equipment, and materials. Error of judgment could jeopardize meeting project deadlines and loss of program dollars to the district. Improper performance of duties and/or failure to adhere to established policies, procedures and guidelines could lead to adverse action and possible termination.

PUBLIC AND INTERNAL CONTACTS

Incumbent will be required to effectively work with others in their section and coordinate with other sections within the District or Programs and may be involved with technical staff members of outside agencies and local interest groups. Incumbent is required to maintain good relations with members of the public and employees from the same and other Divisions within Caltrans, as well as other agencies. Contacts with other public agencies and private individuals may be daily and the incumbent is expected to maintain a favorable image for the Department.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

While at their base of operation, employee will be outdoors but may be required to sit for long periods using a keyboard and video display terminal. Other physical activities will include standing, walking, bending at the neck and waist, stooping, squatting climbing, kneeling, twisting at the neck and waist traversing steep slopes, and pruning or cutting vegetation using mechanical equipment to gain access. The employee often bends continuously throughout the day while operating equipment and performing physical labor. All of these activities are necessary when picking up and laying down tools and material. Operating a motor vehicle for long periods is also part of this function. The ability to lift 80 pounds or move large or cumbersome equipment from one location to another will be necessary. Other activities may be reaching above or at the shoulder, pushing or pulling, simple grasping or fine manipulation. Some of this position is labor intensive. Incumbent must have physical ability to react quickly to errant motorist and do strenuous hand and mechanical labor.

WORK ENVIRONMENT

While at their base operation, employee will work outdoors at all times of the year where exposure to high-speed traffic will occur. Incumbent must follow all policies, procedures, and safe working practices. Employee will also be required to travel out of town, overnight, for extended periods of time. Employee will be exposed to dirt, dust, load noise, exhaust fumes, uneven surfaces, stressful conditions, poison oak, irritating plants, insects, animals, and extreme weather conditions. At times, employee may work indoors in a climate-controlled office under artificial lighting and be required to sit or stand for prolonged periods.

The incumbent must be able to respond to reported culvert failures that may occur on short notice. These incidents may occur anytime, during the day or night and on weekends or holidays and in any type of weather. The incumbent will be expected to be available for extended periods out of town on a per diem basis. Work schedule is typically 4/10-hour/day but may change to 5/8-hour/day. The schedule is at the discretion of District Management.

I have read, understand and can perform the duties listed above. (If you believe you may require reasonable accommodation, please discuss this with your hiring supervisor. If you are unsure whether you require reasonable accommodation, inform the hiring supervisor who will discuss your concerns with the Reasonable Accommodation Coordinator.)

I agree that by providing my electronic signature for this form, I agree to conduct business transactions by electronic means and that my electronic signature is the legal binding equivalent to my handwritten signature. I hereby agree that my electronic signature represents my execution or authentication of this form, and my intent to be bound by it.

EMPLOYEE (Print)

EMPLOYEE (Signature)

DATE

I have discussed the duties with, and provided a copy of this duty statement to the employee named above.

SUPERVISOR (Print)

SUPERVISOR (Signature)

DATE

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