

POSITION DUTY STATEMENT

DOT PM-0924 (REV 01/2025)

CLASSIFICATION TITLE Structural Steel Welder	OFFICE/BRANCH/SECTION District 11 / Maintenance / East Region	
WORKING TITLE SSW, Bridge/Mudjack Crew	POSITION NUMBER 911-610-6598	REVISION DATE

As a valued member of the Caltrans team, you make it possible to improve lives and communities through transportation.

GENERAL STATEMENT:

Working under the supervision of a Caltrans Bridge Maintenance Supervisor or guidance of a Leadworker, the Structural Steel Welder (SSW) performs electric welding, gas cutting and metal shop fabrication. Must possess a certification from the American Welding Society (AWS) D1.5 All positions Unlimited Plate Thickness Groove test Certification and will be sourced to the District Bridge/ Mudjack Crew. Class A or B unrestricted driver's license with tank endorsement is desirable to operate equipment identified as Category 1 and Category 2 used by assigned unit. The incumbent works individually or with a crew performing tasks related to bridge maintenance. Work may be performed at heights of considerable elevations, up to 300' over ground or water, requiring the use of harness, lanyard or other fall protection. The incumbent may work by means of scaffolding, swing staging or platforms; may require working in tight and confined spaces requiring the use of appropriate safety equipment; and may require work on the water from a work boat. Incumbent may be required to work overtime including nights and weekends, may be required to work temporary and/or intermittent varied work shifts, and is expected to respond to emergency calls. The position requires out-of-town travel, usually in week-long increments. May be loaned to another crew. This position is represented under collective bargaining.

CORE COMPETENCIES:

As a Structural Steel Welder, 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.

- Flexibility and Managing Uncertainty** : Adjusts thinking and behavior in order to adapt to changes in the job and work environment. (Safety, Equity, Climate Action, Employee Excellence - Collaboration, Equity, Integrity, Pride, Stewardship)
- Dealing with Ambiguity (Risk)**: Can comfortably handle risk and uncertainty, as well as make decisions to act without having the total picture. (Safety, Climate Action, Employee Excellence - Collaboration, Equity, Innovation, Integrity, People First, Pride, Stewardship)
- Ethics and Integrity**: Demonstrated concern to be perceived as responsible, reliable, and trustworthy. Respects the confidentiality of information or concern shared by others. Honest and forthright. Conforms to accepted standards of conduct. (Safety, Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride, Stewardship)
- 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. (Safety, Climate Action, Employee Excellence - Collaboration, Innovation, Integrity, Pride, Stewardship)
- Teamwork/Partnership**: Develops, maintains, and strengthens partnerships with others inside or outside of the organization through effective communication and collaboration. (Safety, Equity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride, Stewardship)
- Customer Focus**: Considers, prioritizes, and takes action on the needs of both internal and external customers. (Equity, Prosperity, Employee Excellence - Collaboration, Equity, Integrity, People First, Pride, Stewardship)
- 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. (Safety, Equity, Prosperity, Employee Excellence - Collaboration, Equity, Innovation, Integrity, Pride, Stewardship)
- 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, Climate Action, Employee Excellence - Collaboration, Innovation, Integrity, Pride, Stewardship)
- Technical Expertise**: Depth of knowledge and skill in a technical area. (Safety, Climate Action, Employee Excellence - Collaboration, Innovation, Integrity, Pride, Stewardship)

TYPICAL DUTIES:

Percentage
Essential (E)/Marginal (M)¹ Job Description

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40%	E	Operates electric welding and shop equipment such as iron workers,hydraulic presses,cutoff saws,band saws,drill presses and magnetic drills; operates an oxyacetylene torch and welding equipment in heating cutting and performs related work in maintaining and repairing steel structures. Cuts shapes and welds structural steel members removes welds and rivets and replaces with high strength bolts. Removes projecting steel and caulks seams. repairs and straightens broken or bent bridge members applies heat to steel to straighten or repair damaged members to eliminate moisture and and accomplish other purposes on beam, plates, angles and bars. Builds fixtures for fabrication of structural steel assemblies. Works from and erects or assist in erecting scaffolding or emergency rigging Use pneumatic caulking,chipping and riveting tools.
40%	E	Maintenance and repairs of all bridge types, bridge components and bridge materials, and other structures. Cleans and repairs bridge decks, drainage systems and lubrication of bridge components. Repairs of concrete, asphalt, epoxy overlays and slabs for bridge decks and roadways; repairs and maintains structural steel, concrete, and timber structures. Operates various types of pneumatic tools. Services and makes minor equipment repairs. Operates if license permits Category 1 and Category 2 equipment used by the assigned unit, such as but not limited to: bridge tender, scissor lift, Balsi Beam, personnel lifts fork lift, shadow vehicle, cone truck, under bridge inspection truck (UBIT), and cargo truck. Assist with traffic control duties such as setting up and execution of lane closures on two-lane and multi-lane highways, flagging operations, moving closures and manned chain control. Require to properly set up signs, cones, barricades, message boards, and operate 2-way radios.
15%	E	When not doing the accomplished tasks normally performed by the assigned unit. Other such tasks may include, but are not limited to: stenciling bridges, sign repairs associated with bridges, fence repairs along bridge areas, traffic control; implement, maintains and install storm water BMPs (Best Management Practices); trim trees, shrubs, and landscape vegetation in and around bridges; removes litter and debris from the roadsides.
5%	M	Assists with training including equipment operation and uses of tools and materials. Assists with ordering materials & purchasing materials associated with steel fabrication and tracking and inventorying shop supplies. Uses various computer software, may complete minor labor and usage reports. Can also perform tasks related to highway maintenance and landscape work.

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

None. May provide guidance to less experienced crew members performing a specific operation. May be placed in charge at a job site in the temporary absence of the lead worker and supervisor.

KNOWLEDGE, ABILITIES, AND ANALYTICAL REQUIREMENTS

Thorough knowledge of materials, methods, equipment, and tools used in fusion welding and heating of structural steel. Must have knowledge of highway maintenance and construction; provisions of the California Vehicle Code as it pertains to the loading and operation of motor vehicles; and rules and regulations pertaining to highway maintenance practices. Knowledge of basic safe working practices and the safety and health policies and procedures contained in the Department's Injury and Illness Prevention Program.

Ability to communicate and follow directions at a level required for successful job performance; skillfully operate heavy equipment in the performance of assigned duties; make minor adjustments and emergency repairs; do heavy manual labor to assist in work related to highway maintenance; keep records of equipment usage and servicing. Operates if license permits Category 1 and Category 2 equipment used by the assigned unit, such as but not limited to: bridge tender, scissor lift, Balsi Beam, personnel lifts fork lift, shadow vehicle, cone truck, under bridge inspection truck (UBIT), and cargo truck.

Ability to work safely around high-density traffic, work at heights of 300 feet or more, work effectively alone or with others and must be able to evaluate various work situations accurately and make sound decisions.

RESPONSIBILITY FOR DECISIONS AND CONSEQUENCES OF ERROR

Errors in judgment and poor decision making can affect the safety of self, coworkers, public service workers and the traveling public resulting in possible injury or loss of life. May expose the State to tort liability and damage the highway infrastructure, tools and equipment.

PUBLIC AND INTERNAL CONTACTS

Incumbent has occasional contact with the traveling public; contact with State Highway Patrol or other law enforcement agencies

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during emergencies; and routine contact with crew members and supervisors. Most contacts are in person. Most work is done with a partner or in a crew setting. It is necessary to establish and maintain effective working relationships and exercise restraint when dealing with irate motorists. The incumbent is expected to maintain a favorable public image for the Department and the State.

PHYSICAL, MENTAL, AND EMOTIONAL REQUIREMENTS

Almost all work is done in close proximity to traffic and equipment; incumbent must hear at a level sufficient to hear warning shouts and backup bells. Incumbent must possess sufficient peripheral vision to be aware of changes in surroundings.

Prolonged sitting required to operate equipment; sufficient manual dexterity to operate controls and tie-down equipment to be hauled. If assigned to storm patrol, incumbent will be seated in his/her equipment length of shift.

Much of this position is labor intensive. Incumbent must have physical ability to react quickly to errant motorist and do strenuous hand and mechanical labor.

Note: For standing, walking and sitting, along with several other activities, typical duties are used as examples in various situations to give ranges for the activities. Generally, activities can be broken down into operating equipment 40% of the time on a year-around basis. The remainder of the activity is labor.

Standing, Sitting and Walking is described to equal 100% of the work time for a given period such as a work shift. The following are various situations and percentages given to illustrate typical ranges of time spent sitting, standing and walking:

A. Rainy day where worker is digging out clogged ditches and drains: Standing and walking using hand tools 40% each: Sitting and driving 50%.

B. Litter pickup/patrol: Lifting, walking and climbing in/out of vehicle 95% of day

C. Flagging/Pilot Car/Lane Closure Operations: Standing, twisting and turning, and sitting 95% of the day

Lifting (Floor to bench to Floor) – Items listed may be any of the following but not limited to: bags/ buckets of concrete, buckets of rock, and buckets of bridge repair debris which all may weigh as much as 75 lbs. Various heavy pneumatic tools. All listed could be handled on an every day basis. Each shovel full lifted weighs approximately 15 lbs., and 200 to 2,500 lbs. of concrete or debris per day, would normally be lifted. 80% of this lifting would be floor to waist and 20% lifted above the waist.

Another type of lifting is light pickup – loading garbage bags with litter, which requires continuous bending and lifting.

Carrying – Bagged/boxed material, which may weigh 50 to 100 lbs., must be carried from storage areas to vehicles and from vehicles to job sites, which may be on uneven terrain. Tools are carried a few feet to 100 yards and weigh a few ounces to 50 lbs. each. Tools carried include picks, hoes, various pneumatic tools, hoses, signs, standards, flags, and cones, guide posts, etc. and may be carried on uneven terrain.

Overhead reaching – Overhead work includes pulling yourself up into many types of equipment from 0 to 30 times per day, varying tasks on bridges above your head, pruning, holding up signs off a ladder, servicing equipment on the lube hoist, signaling other workers, and throwing/loading material in equipment.

Other Reaching – Setting cones, lubing and checking equipment, raking, shoveling, driving, using digging bar, shifting, holding signs picking up cones; often done on a continuous basis, over 60% of the work shift.

Pushing/Pulling – Shoveling, hooking up trailers; installing plows, sanders, kettles, pulling on hoses, working cranks on equipment stands; tightening and loosening nuts on bolts. Installing and removing tires and chains. Pulling brush and limbs, animal carcasses, and pulling chains.

Twisting - The Operator twist while driving equipment and does so on a continuous basis, especially while backing up or turning around while operating a pilot car. Other twisting is done while dragging brush, shoveling, raking and setting down and picking up traffic cones which weigh 10 lbs.

Climbing/Balancing – Climbing is done in and out of equipment, up and down banks and used in fine manipulation of a chain slopes, ladders, stairways, (often with a load of material or supplies); onto steps and walkways to do engine checks on equipment. One example would be to climb on a heavy equipment trailer to secure the load with chain binders.

Bending/Crouching/Squatting/Crawling – The Operator 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. The Operator also crawls around and underneath equipment while checking and servicing equipment, putting on or removing snow chains and tightening or replacing grader blades.

Simple Grasping – This activity is necessary about 95% of the shift climbing in/out and around equipment, operating equipment, using hand tools and handling materials.

Fine Manipulation – This occurs less than 2% of a day and usually while writing reports or manipulating the knobs and levers on the equipment. A higher percentage of the time would be saw or similar equipment.

Importance of hearing and sight – both are essential on the job because the operator must hear directions and equipment, and must see in order to perform his/her duty safely.

Hearing should be adequate to hear warning devices used for worker safety, i.e. look out alarm devices, including vehicle horns used to warn employees of eminent danger at the work site. Corrected hearing is acceptable.

Sight needs to be corrected to the State of California Department of Motor Vehicles standards for safe vehicle driving. Night vision must be good for safety when working after dark.

ADA Notice

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WORK ENVIRONMENT

Work is done outdoors, where incumbent is exposed to blown dust; treated wood posts, exhaust fumes, fumes from cutting galvanized metal; noise from high-speed traffic nearby; uneven surfaces; extremes of heat and cold.

Personal safety requirements include but are not limited to:

- A serviceable leather work shoe or boot must be worn which is specifically fabricated for highway maintenance and/or construction environments.
- Long-sleeved shirts provided by Caltrans, or a safety vest is to be worn over non-safety shirts or coats.
- Long pants. No shorts or cutoffs.
- Provided safety gear such as hard hat, safety glasses, hearing protection devices, face shields, gloves, respirator, chaps, harness and lanyard, or other safety gear must be worn when required by the department.

Required to work in a wide range of sometimes-extreme conditions, including heat up to 120 degrees, cold to 25 degrees, strong winds, rain, sleet, and snow. Assignments will generally be within the 2 counties in D-11; significant overnight travel on per diem may be required. Much of the work will be performed in high and confined spaces.

Will be required to work overtime due to storms, emergencies, special work projects, or when the Supervisor deems that it is in the best interest of the State to work overtime.

Possession of a valid driver's license is required to operate a State owned or leased vehicle.

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
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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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