



TITLE:	Road Construction Equipment Operator/ Welder	JOB CODE:	1204-B
PREPARED:	12/5/13	FLSA:	Non-Exempt
UPDATED:	12/5/13	REVISION #:	1

Direction: Works under the direction of the Road Maintenance/Construction Foreman, Assistant Road Supervisor, or Road Supervisor.

Summary: Under general supervision, performs journey-level welding, fabrication and painting of various parts, construction equipment, machinery, cattle guards, bridge structures, and guard rails. This position also performs skilled duties in the construction, maintenance and repair of paved and unpaved County maintained roads, bridges, and related infrastructure including gravel plant operations. Operates a variety of vehicles and heavy equipment such as motor graders, asphalt paving machines, chip sealing machines, loaders, and dozers on a daily basis. Possess a degree of knowledge and proficiency sufficient to perform advanced level work and provides work direction and training to others.

Distinguishing Characteristics: This position is distinguished from the Road Construction Equipment Operator Position by the added responsibilities and necessary experience in journey-level welding and fabrication. Is expected to perform the full range of welding duties, with only occasional instruction, or assistance. This is a safety sensitive position, and is subject to drug and alcohol testing in accordance with the requirements of the Federal Motor Carrier Safety Administration, and the Department of Transportation.

Essential Job Functions: *Performance of these functions is the reason the job exists. Assigned job tasks/duties are not limited to the essential functions. Incumbent(s) may not be required to perform all duties listed, and may be required to perform additional, position-specific tasks.*

- Designs layouts, calculates materials costs and performs fabrication by cutting and welding or lathing various metals to create or repair parts, tools and equipment.
- Cuts and/or joins metal parts in order to fabricate or repair vehicle equipment, construction equipment, and tools using tools such as plasma cutter, mig welder, tig welder, arc welder, oxyacetylene torch, chop saw, grinder, drill press, clamps, and hand and power tools.
- Designs and fabricates parts and equipment to meet unusual or special needs of the department, and gravel plant.
- Maintains records of work completed such as service requests and work orders in order to provide an accounting of activities in the welding shop.
- Performs research to determine the appropriate welding rods for specific metals to ensure a proper weld.
- Oversees all welding functions and operations in the welding shop to ensure and provide a safe, clean, and effective work shop.
- Must perform various welding and fabrication duties both within the welding shop, and at various project sites.
- Prepares and spray paints various parts, construction equipment and vehicles.
- Performs machining on parts and equipment.

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- Maintains inventory of supplies routinely used in the operation of the welding shop by inspecting stock and ordering supplies as needed. Inspects parts and supplies received in order to verify accuracy of invoices.
- Performs functions and duties related to heavy equipment operation in the grading, reconstructing, repairing, and resurfacing of existing County roadways, bridges, and related infrastructure. Road projects include, gravel upgrades, asphalt overlays, new paving, single and double chip seals.
- Operates a variety of heavy and construction equipment including but not limited to: motor graders, dump trucks, loaders, bulldozers, backhoes, excavators, pneumatic rollers, steel drum rollers, asphalt paving machine, chip seal paving machine, end dump trailers, trains, belly dump trailers, snow plows and sander trucks.
- Operates the crusher while assisting in the safe and effective operations of a rock crushing, gravel producing plant.
- Interacts directly with OSHA, MSHA, and other inspectors during onsite inspection visits.
- Provides on-site direction on various road improvement projects.
- Performs field surveys by setting stakes, checking elevations, recording road profiles and designing road alignments. Operate laser levels with a high degree of proficiency. Work from standard detail drawings, road profiles, blueprints, structural and civil plans.
- Installs traffic control devices such as signs, barricades, and cones per the Nevada Work Zone Traffic Control Manual prior to construction and maintenance activities to provide for the safe operation of traffic through the work zone. Perform flagger duties as necessary. Ensures safety precautions are observed throughout the entire project.
- During road and bridge projects, directly responds to questions and complaints from the public, carries out assignments in a non-disruptive manner in areas receiving heavy traffic.
- Responds to emergency callouts on a 24/7 basis. Provide traffic control, and perform flagger duties on emergency callouts and traffic accidents. Assist Fire and Sheriff's Department when dispatched.
- Trim and remove trees for roadways and rights-of-way. Operate related equipment and machinery including, aerial lift/bucket truck, industrial wood chipper, and chain saws.
- Use proper construction techniques to compact various materials such as native soils and aggregate base rock, and the placement of rip-rap.
- Perform minor repairs on equipment and report the need for major repairs; check and adjust fluid levels; grease and lubricate moving parts as required.
- Performs emergency storm/disaster work in regards to traffic control, the clearing of debris, large animals, or excessive water from roadways, snow and ice removal, washouts, road and bridge failures or damage. .
- Observes safe work methods and uses safety equipment; secures worksites from traffic hazards as necessary, attends safety meetings. Makes routine and emergency purchases as authorized and required for supplies and materials.
- Performs maintenance and repairs to various vehicles and equipment including pickup trucks, motor graders, generators, compressors and ditch pumps; hauls materials to job sites using various large truck and trailer combinations. Performs related work as assigned.

MINIMUM QUALIFICATIONS

- **Knowledge and Abilities:**

Knowledge of the principals and practices of all types of welding; types and blends of ferrous and non-ferrous metals and their compatibility with various welding rods and mig wires; principles and practices of spray painting; safety practices and procedures to be followed in welding and fabrication

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operations; operation of equipment and in performance of manual tasks such as lifting heavy items, use and handling of lubricants; capabilities of tools and equipment used in road maintenance and procedures for operating heavy construction equipment; construction standards and inspection methods and techniques for Public Works Construction; County policies, procedures, rules and regulations; Federal State, and local laws, rules and regulations pertaining to signs and traffic markings; the geography and road system of Churchill County.

- Ability to provide shop and field fit up, welding, and mill-wright work; perform installation and repair work on a variety of machinery, construction equipment, tools, bridge structures, guard rails, and cattle guards; work independently and/or effectively as a team, and actively contribute to a safe and productive work site; operate assigned equipment in a safe and efficient manner; carry out written and verbal instructions; operate different types of heavy and complex construction equipment; learn and follow operating procedures; communicate effectively with members of the public; work cooperatively with others; identify when equipment needs repair; reading and interpreting road and/or bridge plans including road profiles, civil and structural drawings, and specifications; recognize potentially hazardous situations or safety issues, and take immediate corrective action; perform semi-skilled and skilled tasks in the construction and maintenance of roads, bridges, and related infrastructure; estimate necessary materials and supplies with a reasonable degree of accuracy.

Education, Experience, Certifications and Licenses: All certifications and licenses must be obtained within 6 months of employment.

- High School diploma or equivalent GED certificate.
- Five years of experience in journey-level mechanical experience in fabrication welding.
- Five years of experience in road and/or bridge construction and maintenance, carpentry and concrete construction, and 3 years of experience in equipment operation.
- Valid State of Nevada Class A Commercial Driver's license with Tanker, and Double and Triple Trailer endorsements. (Ability to obtain one in 6 months)
- Flagger and Work Zone Safety certification.
- OSHA 10 Certification.
- MSHA Certifications as required for mining/gravel plant operations.
- First Aid and CPR

Environmental Factors and Conditions/Physical Requirements:

- Work is performed in work zones on or around city, state, and county roadways.
- Outside environments with exposure to vehicular traffic, inclement weather, extreme heat, fumes and airborne particles, moving mechanical parts, and near or on heavy equipment.
- Noise level in the work environment is usually loud. Work independently in very remote or isolated geographic areas, with limited or no cell service.
- Operate a variety of mechanical equipment in a safe and effective manner in routine situations.
- Perform heavy manual labor.
- Ability to work long days (12-14 hours) during various construction or paving projects.
- Ability to drive for long periods of time on rough roads in both, daytime or nighttime hours.
- May be exposed to hazardous chemicals.
- Employee is regularly exposed to heights above 8', risks of electrical shock and or vibration.
- Subject to standing, walking, sitting, bending, reaching, kneeling and lifting heavy objects over 60 pounds.

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- Specific vision abilities required by this job include close vision, distance vision, color vision, peripheral vision, depth perception, and ability to adjust focus.

Special Conditions:

Employment is contingent upon the results of a pre-employment drug examination and subject to random drug testing in accordance with DOT requirements. Responds to after hour emergency call outs. Must be willing to work overtime, shifts, weekends, and holidays. May be required to be on-call, or on standby. Must wear appropriate protective gear and clothing as necessary. Must perform welding and fabrication operations in the welding shop, and out in the field on various project sites.

Equipment and Tools Utilized:

Includes but is not limited to: hand tools, various welding equipment, lathe, drill press, metal cutting saws, pipe bender, sanders, grinders, micrometer, calipers, digital scales, paint spray equipment and motorized road maintenance equipment. Operates a variety of heavy and construction equipment, including but not limited to motor graders, asphalt paving machines, chip sealing machines, dump trucks, loaders, dozers, backhoes, excavators, pneumatic rollers, steel drum rollers, end dump trailers, trains, belly dump trailers, snow plows and sander trucks, large water pumps, propane torch, and air compressors, lasers, hand held radios, chain saws, and an extensive variety of hand and power tools.