

STATE OF SOUTH DAKOTA CLASS SPECIFICATION

Class Title: Lead Highway Maintenance Worker

Class Code: 080915
Pay Grade: GH

A. Purpose:

Provides training and daily work direction in highway maintenance and rehabilitation procedures to highway maintenance staff and temporary and seasonal employees. Acts as a working crew leader while performing a variety of highway maintenance procedures, operate specialized equipment, utilize computer hardware and software and electronics, and provide on-the-job training to assigned seasonal employees and trusties to maintain the state's highway system in accordance with department standards.

B. Distinguishing Feature:

Lead Highway Maintenance Workers coordinate and perform daily work activities and provide work direction to highway maintenance staff and seasonal employees and trusties.

Highway Maintenance Supervisors determine, prioritize and assign work to designated highway maintenance units, and supervise.

Highway Maintenance Workers function independently with general supervision, perform a variety of highway maintenance procedures, operate specialized equipment, utilize computer hardware and software, and electronics.

C. Functions:

(These are examples only; any one position may not include all of the listed examples nor do the listed examples include all functions which may be found in positions of this class.)

1. Provides training and work direction to highway maintenance staff and seasonal employees and trusties to ensure they know the maintenance standards and procedures.
 - a. Teaches employees how to operate equipment and tools.
 - b. Provides manuals and other materials for study purposes.
 - c. Evaluates employees' progress and reports to the Highway Maintenance Supervisor.
 - d. Assigns tasks to individuals and monitors progress.
 - e. Reviews employee time sheets and leave requests for accuracy.
 - f. Directs winter operation training for new employees and documents training.
 - g. Assists with safety training and monthly meetings.
2. Completes records and reports to keep the Highway Maintenance Supervisor informed of work progress and equipment and material use.
 - a. Assigns and reports on daily work.
 - b. Issues mowing permits.
 - c. Records and reports on warehouse and fuel inventories.
 - d. Files accident reports.
 - e. Records equipment mileage and hours.
 - f. Reports winter road conditions using IRIS computer application.

- g. Monitors installation of utilities and approaches.
 - h. Obtains materials and supplies.
 - i. Solicits price quotes in accordance with purchasing policies.
 - j. Tracks labor and material cost of complete property damage reports.
 - k. Operates and manages computerized fuel dispensing and waste of storage systems, including underground leak detection systems.
3. Directs and performs roadway maintenance activities to ensure work is accomplished according to the maintenance standards of the department.
 - a. Directs and performs asphalt pavement operations with laydown machine.
 - b. Determines traffic control needs and ensures they are in place in accordance with department standards.
 - c. Assesses pavement condition utilizing established pavement preservation guidelines to determine appropriate repair methods on bituminous and concrete roadways.
 - d. Monitors work activities to assure quality work is achieved.
 - e. Directs and performs vegetation control within the highway right of way to include mowing and noxious weed control.
 - f. Directs and repairs pipe culvert maintenance and erosion control.
 - g. Use GPS equipment to document culvert condition and track culvert repair work.
 4. Directs and performs the installation and repair of signs, fences, guard rails, traffic control devices, and pavement and roadway marking to ensure compliance with maintenance standards.
 - a. Prepares and calibrates equipment and obtain supplies and materials.
 - b. Coordinates striping activities in assigned geographical areas.
 - c. Monitors application of paint and adhesive materials.
 - d. Lays out patterns for specialized pavement marking.
 - e. Ensures signs and posts are placed and installed at correct distances and heights.
 - f. Ensures traffic control is in place at work sites.
 - g. Performs quality on pavement markings using reflectometer.
 5. Directs and performs structure rehabilitation activities to maintain integrity of bridges structures.
 - a. Obtains equipment, supplies, and materials.
 - b. Lays out work areas, assigns tasks, and issues equipment and supplies.
 - c. Designates drilling patterns for deck and approach repairs.
 - d. Determines rates of epoxy and slurry and monitors injection.
 - e. Ensures traffic control is in place at work sites.
 6. Directs and performs winter-time highway maintenance to allow public mobility and safer traveling conditions.
 - a. Reports weather and road conditions using IRIS computer application.
 - b. Prepares equipment and assigns tasks to crew members.
 - c. Removes snow from roadways by using a variety of snow-removal equipment.
 - d. Uses MDSS and MDC computer applications to determine appropriate usage and rates.
 - e. Provides direction to staff on appropriate material usage and rates.
 - f. Assesses roadway conditions and monitor weather forecast using MDSS computer application to direct staff needs for winter operations.

- g. Coordinates winter operation activities with adjacent maintenance shops.
- 7. Directs and performs facility and rest area maintenance and repair to maintain and extend the life of facilities.
 - a. Obtains equipment and supplies.
 - b. Assigns tasks and equipment and provides expertise in carpentry, painting, and plumbing repairs.
 - c. Monitors and maintains unit inventories.
 - d. Monitors and documents contract caretaker's performance and assure acceptable service is provided.
- 8. Directs and performs vehicle and equipment preventive maintenance to ensure availability of functioning equipment.
- 9. Analyzes work site risks and manages associated risks to maintain a safe work environment.
 - a. Coordinate and direct monthly safety meetings.
 - b. Maintain traffic control within standards in work zones.
- 10. Performs other work as assigned.

D. Reporting Relationships:

Reports to a Highway Maintenance Supervisor or an Operations Engineer. Does not supervise but provides daily work coordination and direction to highway maintenance staff, seasonal employees, and trusties.

E. Challenges and Problems:

Challenged to accomplish assigned work in allotted time and as outlined by the supervisor. This is challenging because of outside influences such as weather and traffic, and internal problems such as short crews and equipment breakdowns. Further challenged to determine the most effective procedures to complete the work. This is difficult because it requires an overall evaluation of the job in comparison to equipment and manpower available. Varying weather conditions requires crews to be available to report on weekends, holidays, and at unusual times of day or night. This may also involve working long hours for an extended period.

Problems encountered include equipment breakdowns, inclement weather, making sure traffic control devices move as projects progress, and work-related injuries.

F. Decision-making Authority:

Decisions include daily work assignments, equipment and supplies needed for projects, if work meets standards, location of traffic control devices at work sites, calibration of equipment, adjustment of rates of material, when to remove snow and apply chemicals to roadway surfaces, when to replace pavement marking, and when to perform equipment maintenance.

Decisions referred include work priority and procedures required, equipment repair and parts replacement, inventory of supplies and materials, and staffing changes.

G. Contact with Others:

Contact with the public to answer questions and direct traffic through projects, weekly with other state agencies to provide information on accident damage and road conditions, monthly with local governments to coordinate work, with other maintenance crews to coordinate activities and resources, with highway construction staff for final inspection of highway projects, with landowners to address issues within the right of way, and occasionally with law enforcement personnel regarding accidents and hazardous materials.

H. Working Conditions:

Works in all weather conditions; in high-volume, high-speed traffic; around heavy equipment; in dust and noise; around hazardous chemicals, hot material, and petroleum products; at high elevations above ground and water; and near utility lines. Work involves heavy lifting and hard, manual labor.

I. Knowledge, Skills, and Abilities:

Knowledge of:

- department standards pertaining to highway maintenance and rehabilitation;
- safe operation, maintenance, and repair of road construction equipment;
- use and maintenance of a wide variety of job-related hand and power tools;
- preventive maintenance methods such as changing oil, rotating tires, and lubricating parts;
- on-the-job safety practices as they relate to operating equipment and tools, and handling chemicals such as weed spray, road oils, deicing chemicals;
- occupational hazards and safety precautions related to road construction work;
- work zone traffic control procedures;
- use and application of various construction materials;
- arithmetic sufficient to calculate volume and quantity;
- purchasing procedures;
- weather conditions and the effect on roadway surfaces;
- computer applications;
- electronic systems to operate various equipment and devices.

Ability to:

- drive and operate a manual transmission;
- operate and maintain a variety of road construction equipment safely and effectively;
- use hand and power tools;
- communicate sufficiently to provide on-the-job training to assigned employees;
- monitor work progress and assist employees in solving work problems;
- estimate time and materials;
- keep required manual and computerized records and reports;
- assess changing weather conditions and their effect on the work at hand;
- work outdoors in all weather conditions;

- lift and carry as much as 75 pounds routinely, push and pull heavy objects;
- sit for extended periods in rough riding equipment and walk or stand for extended periods;
- routinely kneel, bend, stoop, and twist to perform work activities;
- climb on and crawl under equipment;
- work extended hours for an extended period of time;
- report to work at unusual times of the day or night;
- work around traffic, dust, and noise; hazardous materials; and at high elevations over ground and water;
- learn and utilize computer application to complete time forms, receive material recommendations, enter road conditions, document material usage, and monitor weather forecasts;
- provide leadership and direction to maintenance crew.

J. Licenses and Certificates:

(Used for announcement purposes only.)

Incumbents must have a valid driver's license and must have or obtain a valid commercial driver's license (CDL) within 120 days of hire date to retain employment. The incumbent must have a Class A CDL with the tanker endorsement and no restrictions in order to operate any Class A vehicle that is a truck-tractor/semi-trailer, with manual transmission. The CDL must include an N endorsement (tank vehicle) for specific positions and must have no transmission restrictions.