



## **Detailed Specifications for a New 2026 6-Wheel Drive Motor Grader Mountrail County, Stanley, ND**

Equipment furnished to the County must meet the following "minimum" specifications. If call for bid is for more than one motor grader, "minimum" specifications pertain to all motor graders bid.

1. Standard equipment on the motor grader shall include: Accelerator/decelerator, dry type (dual element) Winter air cleaner with service indicator, automatic dust ejection, pre-cleaner, reverse alarm, temperature gauge, either starting aid, electronic throttle, horn, rear ripper, electric hour meter and tool box.
2. The motor grader furnished shall be a new 2026 model 6-Wheel drive type with rear articulated frame steering and shall include a frame articulation indicator.
3. The minimum base operating weight of the motor grader shall be no less than (38,000) pounds (not including snow plow, snow wing, or rear ripper).
4. The engine shall be a four-cycle turbo charged design diesel with a minimum net engine HP of 275 (minimum 475 cubic inch displacement) with engine side shields and a 120-volt engine coolant heater. Coolant fan must be hydraulically driven and thermostatically controlled.
5. The motor grader shall include cold weather heavy duty 24 volt direct electric starting with a minimum of two (2) 12-volt (100-amp hour) batteries with minimum CCA rating of 1300. The alternator shall have a minimum rating of 200 amps to handle the total electrical load.
6. The motor grader shall include a direct drive transmission with auto shift.
7. The motor grader shall include a reverser fan.
8. The motor grader shall include slope control.
9. The motor grader shall include a differential system with the lock/unlock feature.

10. The motor grader shall include an all-weather, sound suppressed, steel type, ROPS enclosed cab. The cab shall also include: air suspension type heated operators' seat with seat belt, tinted laminated glass, inside mounted rear view mirror, back-up camera, operator cup holder, AM/FM radio, Bluetooth with microphone, outside mounted heated rear view mirrors, front and rear windshield wipers with washers and intermittent function (include wipers on front lower window panels for moldboard visibility.)
11. The motor grader shall be equipped with combined pressurized air conditioning/heating unit, armrest/joystick controls, along with electric and hydraulic controls. (GP or 150 joystick controls accepted, as pictured in Attachment A. Antler rack style will not be accepted.)
12. The motor grader shall be equipped with an audible/visual type warning system to monitor the following: Alternator, coolant flow, high water temperature, power train oil temperature, power train oil filter and engine oil pressure. This alarm system should be an AID #60 or approved equal. Unit shall also have a tachometer and speedometer.
13. The motor grader shall be furnished with a one piece, solid 16-foot moldboard measuring one inch thick by 27inches high, with  $\frac{3}{4}$  inch bolt holes, cutting edge will be excluded. Bolt-on extensions, sectional moldboards, or add-on blade extensions shall not be permitted to achieve required length. Motor grader shall include, hydraulic blade tip, and hydraulic side shaft. The motor grader moldboard shall be equipped with circle drive impact protection.
14. A full LED lighting equipment package on the motor grader shall include, but not limited to: Center mounted and rear mounted work lights, upper and lower cab mounted work lights, directional signals, raised plow headlights (as pictured in Attachment B.), stop lights, tail lights, snow wing light and 2 Sound Off Signal Beacons (Model: QE007697) located at: (1) the top front corner of the cab and (2) the top rear opposite corner of the cab. The beacons will be hardwired utilizing an existing rocker style switch in cab of the motor grader.
15. The motor grader shall be equipped with a fully filtered, pressurized hydraulic system with all-season oil, and the standard valve arrangements for that unit, including additional valves and attachment lines with float feature for the front lift group, rear ripper; and two (2) valves with float for the snow wing, on the right hand side.

16. The motor grader shall be equipped with a front Balderson style lift group.
17. Mountrail County shall retain all snow wing and plow equipment from the trade motor graders. Mountrail County will deliver the snow wing equipment to the successful bidder's place of business in Minot, North Dakota. The successful bidder will be responsible for attaching all snow wing equipment to the new motor grader and be accountable for any additional costs that the successful bidder could potentially incur when installing wing equipment.
18. The steering system on the motor grader shall be full hydraulic type with two (2) steering cylinders on front wheels with steerable front fenders. The unit must be capable of a minimum 50 degree right and left steering angles for close maneuvering; 18 degree hydraulically controlled front wheel lean and oscillating front axle.
19. The tires furnished on the motor grader shall be 17.5" x 25" bi directional radial tires for mud and snow which shall be Bridgestone VSWAS. The motor grader shall also be equipped with minimum 14" wide base rims and removable heavy duty front and rear fenders.
20. Bids shall state the delivery date and terms of warranty applicable to the machine bid. Warranty shall be for a minimum of 7500 hours or 60 months (whichever occurs first) total machine warranty. The successful bidder shall pay for all repairs (including transportation, parts and labor) to the equipment covered by the manufacturer's warranty.
21. Bids shall state the guaranteed buy-back without purchase for new motor grader and attachments at the end of 7,500 operating hours or 60 months (whichever comes first).
22. Motor grader shall be manufactured in the United States of America.
23. Upon notification from the Road & Bridge Department, the successful bidder shall furnish requested parts within three normal working days to the specified county shop in Mountrail County. A charge of \$500.00 per working day shall be billed the bidder by the Road & Bridge Department after three normal working days until the part arrives. In the event of mechanical breakdown affecting work, the \$500.00 charge shall apply after three consecutive working days until parts arrive. If the invoice for parts exceeds any amount to be billed by Mountrail County, such amount will be used as a credit towards the total invoice amount.

24. In determining the guaranteed total cost of such repairs, the following rules shall apply:

- a) Mountrail County will bear the cost of transportation for the equipment from the field to the Mountrail County Shop to which the equipment is assigned. Costs of transportations of the equipment to and from any other repair site will be part of the cost of repairs covered under the warranty. No exceptions will be made to this.
- b) Repairs may be made in service departments other than that of the successful bidder and Mountrail County, however the successful bidder and Mountrail County must agree to repairs being made in other service departments and the service department chosen must be agreeable to both parties. Repair parts shall be original equipment.
- c) Should repairs not be made within three normal working days after notification by Mountrail County Road & Bridge Department, Mountrail County may either require a loaner machine of equal size, fully equipped for the season, be furnished by dealer at no expense to Mountrail County, until such time as the Mountrail County machine is repaired, **or** bill a daily charge of \$500.00 per working day until such time as the Mountrail County machine is repaired. Mountrail County reserves the right to require whichever option is in the best interest of the Road and Bridge Department in our service to Mountrail County.

25. Machine must be delivered on or before July 3, 2026 or a machine of equal size shall be furnished by a dealer at no expense to Mountrail County until the new machines are delivered. Machine to be delivered to Mountrail County South Complex location at 8103 61<sup>st</sup> Street, NW Stanley, ND 58784.

## **Attachment A – Joystick Controls**

John Deere Configuration



Cat Configuration



## **Attachment B – Plow Lights**

