

## **2014 Motor Grade Wheel Rake: North Dakota**

### **CONTACT:**

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### **PROBLEM STATEMENT:**

After the ditch has been mowed, grass from the ditch blows onto the roadway. When blading the road with a motor grader, the grass mixes with the gravel causing big mounds and ridges. Two to three feet of mowed grass ends up on the roadway narrowing the width of the roadway. The mounds and ridges are a hazard to the traveling public and the potential for accidents increases.

### **SOLUTION:**

Modify a wheel rake to mount on the front end of a motor grader to remove the loose grass on the roadway prior to the road being bladed. The rake attaches to the dozer blade with multiple adjustments for angle and height. After the loose grass is raked into the ditch it blows away or deteriorates.

### **LABOR/MATERIALS/COST:**

The wheel rake was discarded by a local farmer and was acquired at no cost to the county. Miscellaneous material was used to modify the rake to include flat iron, telespar-tubing, and nuts and bolts for a cost of \$50. The labor involved was for two people for 8 hours @\$35/hour combined for a cost of \$280. The total cost was \$330.

### **SAVINGS/BENEFITS TO THE COMMUNITY:**

The safety to the traveling public is greatly improved by the elimination of mounds and ridges of mixed grass and gravel. The roadway is wider and the gravel is more evenly distributed on the roadway. In only having to make one pass blading with the wheel rake mounted on the motor grader saves time and money instead of having to make multiple passes without the rake. Employee and public safety is improved because they don't have to spend time on the road surface removing large bunches of grass mixed with gravel.

