

2016 YOU SHOW US CONTEST

PICKUP SIGN RAMP

COUNTY: Steele County in North Dakota

DESIGNERS: Myron Moteberg, Reed Oien, Tim Nerbey, and Preston Moteberg

ADDRESS: Steele County Highway Department
PO Box 275
Finley, ND 58230

TELEPHONE: 701-524-2110

EMAIL: steelecohighway@mlgc.com

PROBLEM STATEMENT:

Repairing or changing road signs can be dangerous and costly if proper equipment is not used. Often times this work is done while employees are standing in the box of a pickup or standing on a ladder. Weather conditions and the condition of the ditch can add to the risk factor in making a timely and safe repair to road signs. If the ditch is too wet or full of snow a repair/replacement of the sign may not be possible resulting in loss of time and money. Employees have fallen from ladders or slipped and fell in the pickup box hurting themselves.

SOLUTION:

Design a work platform attached to a pickup where employees can safely work on signs from the shoulder of the road. The sign ramp is attached to the front of a pickup and can be extended to 15 feet into the ditch. It has three 5 foot extensions that can be folded up when in the travel position. It is made of steel square tubing and the walking surface is made of grated steel and is 18 inches wide. A safety cable rail is attached for employee safety. The sign ramp eliminates the need for employees to stand in the pickup box or on a ladder trying to handle a heavy and bulky sign.

MATERIALS:

Steel square tubing- 2 inch size about 50 feet; 1 ¼ inch size about 25 feet. 16 feet of flat iron. 18 feet of grated steel. Ratchet and cable.

Total cost- \$450

SAVINGS AND BENEFITS:

The sign ramp has greatly improved employees safety by eliminating the need to climb ladders with heavy signs on uneven ground or standing in a pickup box leaning and reaching over the side. The pickup with the sign ramp is ready to go and therefore saving time to get to emergency sign repair improving safety for the traveling public. Since it isn't necessary to get into the ditch to make a sign repair; repairs can be made under adverse conditions and repairs take only half the time as before. When the sign ramp is lowered into the ditch the working surface is level for easy walking and reduces the manual labor in repairing or replacing a sign. The risk of an employee falling is greatly reduced therefore making for a safer work place.





