

2013 YOU SHOW US CONTEST

SIGN REPAIR PLATFORM

COUNTY: Burke County in North Dakota

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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 platform is locked in the upright position for travel and hydraulically lowered and raised to reach into the ditch 14 feet from the shoulder of the roadway. The walking surface of the platform is grated steel and a safety rail is attached for employee safety. At the end of the signing season the platform can be removed in 30 minutes to free the pickup for other work activities. The sign repair platform eliminates the need for employees to stand in the pickup box or on a ladder trying to handle a heavy and bulky sign.

LABOR AND MATERIAL:

All the steel and iron material was scrap located at the county shop. This included 2x2 inch steel tubing and telespar, expanded metal, and 3/4 inch round rod for railing. The hydraulic cylinder and hoses, electric/hydraulic pump, and electric switch were purchased for \$450. The labor amounted to 16 hours.

SAVINGS AND BENEFITS:

The sign repair platform 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 mounted platform 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 platform is lowered into the ditch the working surface is level for easy walking and reduces the manual labor in repairing or replacing a sign.



