

Technology in Rural Transportation



A recent study documented more than eighty proven, cost-effective, “low-tech” solutions to rural transportation needs, most developed or implemented by local transportation professionals. One of these solutions is outlined below:

Learn all about the simple solutions on the Internet at <http://inform.enterprise.prog.org>

The simple solutions report is available from Hau To at (503) 892-2533, or email: to@crc-corp.com

Lane Drop Driver Awareness

Overall goal:

To improve workzone safety and traffic operations by encouraging drivers to merge sooner in advance of construction zones.

Technical approach:

Lane drops occur as a result of restricting roadways caused by construction work or other planned or unplanned events. When vehicles fail to merge in a timely fashion, delays or traffic accidents often occur. This simple solution uses advance warnings to calm the traffic and induce smoother transitions into limited lane areas. A series of portable "DO NOT PASS" signs equipped with flashing beacons is placed at the approach to a construction site. Electronic occupancy sensors are placed in the roadway. At the outset of operations only the sign nearest to the work zone has activated beacons. When a certain threshold is detected by these sensors, that is, as the volume of traffic grows more heavy at the approach to the construction, the beacons on the next sign upstream will also be activated, and so on. As traffic flow varies, the signs are activated or deactivated in sequence.

Current status:

Five signs comprising one lane drop smoothing system are currently in use. A system specification is currently being developed. The state agency that developed the system then plans to circulate this to contractors.

Location / geographic scope:

This is a site-specific application used as necessary in construction zones in Indiana.

Agencies involved:

Indiana DOT

Cost information:

The current system cost approximately \$4,500 per sign.

Key contacts:

Dan Shamo, Indiana DOT. (317) 232-5523

Have goals been

Anecdotal reports from construction personnel indicate the system is



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achieved?

effective in encouraging drivers to merge earlier when approaching a work zone.

Solution timeline:

The system is in use. Currently, a four-sign system is also being used to save on the cost of purchasing signs.

