

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

Rail-Highway Crossing Safety System

Overall goal: There were two goals of the ARCS-Reno system: 1. To enhance Reno’s existing railroad crossing warning system. 2. To improve emergency response in Reno.

Technical approach: Reno has eleven grade crossings in the downtown area. The downtown area has heavy pedestrian traffic because of the casinos and other tourist attractions. It also experiences traffic congestion. People are killed each year at the busy railroad-grade crossings. The ARCS system collects information on approaching train speed and distance from an intersection from the existing train detection system. The information is reported to an operations center, where it is shown on a digital map. This information helps dispatchers route emergency vehicles around closed railroad-grade crossings. Reno is considering several alternatives to improve highway-rail safety. The city is considering lowering the railroad tracks to eliminate all crossings. If they do lower the railroad tracks, the ARCS-Reno system will not be needed.

Current status: Reno is considering several alternatives to improve highway-rail safety.

Location / geographic scope: This project was proposed for downtown Reno, Nevada..

Agencies involved: The City of Reno, the Nevada Department of Transportation and Union Pacific have assigned Memorandum of Understanding, with Union Pacific paying for the system and the city operating and maintaining it.



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Cost information:

The complete system, including five closed circuit cameras to monitor the intersections could be built for less than \$260,000.

Key contacts:

B.E. (Bruce) Williams, Dir., Signal Design Union Pacific, 1416 Dodge Street, Room 1000, Omaha, NE 58179, (402) 271-4582
Steve Varella, City of Reno, (757) 334-2215

Have goals been achieved?

As the system has not yet been deployed, it is unclear what impacts it will have.

Solution timeline:

The project utilizes existing technology in the field and could be deployed in less than six months.

