"Wireless" Traffic Control Solutions

APPLICATION: *Deer Crossing Flashers and Traffic Calming Systems*
LOCATION: U. S. Highway 70, New Mexico Hondo Valley Project

Description

Made possible by a joint effort of the New Mexico Department of Transportation (NMDOT) and the Federal Highway Administration (FHWA), the U.S. 70 Hondo Valley project started construction August 2002 and was completed in August 2005. The goal: to widen a two-lane highway to four lanes with wide shoulders and turning lanes to reduce accidents and improve traffic flow.

Deer crossing warning flasher on U.S. 70 Hondo Valley, NM

Radar speed control for traffic calming

The area – in southeast New Mexico from Ruidoso Downs to Riverside – is frequented by heavy traffic with a high rate of accidents and fatalities averaging 10 to 12 deaths a year. With 350 private entrances exiting onto U.S. 70, residents turning off and on the highway to access facilities and services along the route were exposed to the dangers of a narrow two-lane, winding roadway with no turning lanes.

"Based on our previous experience with solar power systems and radio activated systems," said Joe Wise, president of Solar Traffic Controls (STC), "our proposal was chosen for the project. STC was given the order to produce deer crossing flashers and traffic calming systems employing radar speed signs and flashing beacons along the 38-mile Hondo Valley portion of US 70."

Twenty-two STC units were sold and installed by Bixby Electric of Albuquerque. Two of the units were deer crossing warning flashers, basically school zone flashers designed to run 7 days a week: 4 hours in the morning and 4 hours in the evening as deer are diurnal, i.e., active two times a day – morning and evening. An STC-designed time clock was incorporated into each unit enabling adjustment on a month-by-month or quarterly basis to compensate for the time shift in sunrise and sunset. The units turn on every day, 2 hours before the official sunrise and sunset.

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Of the remaining 20 systems installed, 10 were radar speed controls and 10 radar-activated flashers constituting a set of devices for traffic calming. These devices advise approaching drivers their speed using the radar feedback. If they are speeding, the unit "radios" 500 feet down the road and activates two, 12-inch solar-powered flashers with the posted speed limit so drivers will decrease their speed. Every town along the route received a radar speed display on the entry of each side of town coupled with a solar-powered flasher.

Take these steps to insure the success of your solar-powered project:
1. Location - identify the site of the application; for example, the nearest town, village or city and state.
2. Load - specify the number and size of lamps, timers or other controls (anything which draws power).
3. Duty Cycle - determine how many hours per day and which days per week the load will be drawing power.

Go to "Send us your requirements" at www.SolarTrafficControls.com/support/requirements.php for more details.

Solar Power: a free source of energy
STC's solar-powered systems are designed for quick and easy installation in the field. Our careful front-end engineering minimizes your installation costs and provides years of trouble-free operation. The standard solar power system includes the solar array, system enclosure with all the necessary electronics, color-coded wiring harnesses, sealed batteries and full documentation. DC LED lamp kits can also be purchased. These include the LED beacon, lamp housing and mounting hardware.

STC Systems are Cost Effective
Our solar flasher systems allow you to stretch your budget to obtain the traffic safety devices you need at affordable prices. Most systems are equivalent to the cost of obtaining an AC power drop. Battery life is typically three to six years; less expensive than grid electricity for the same period of time.

Solar Traffic Controls (STC) provides solar-powered traffic control systems for city, state and federal DOTs; police, firefighting and public works departments; facility maintenance and plant safety industries. Our primary products are solar-powered flashing beacon systems used for school zones and 24-hour applications. We also supply specialized flasher systems using environmental sensors and custom communications packages to control the flashing beacon systems. Our product spectrum also includes wireless power systems for ITS, EMS and HAR. STC's products and services are sold through a network of regional distributors who offer technical support for your project.

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