



## **“Wireless” Traffic Control Solutions**

**APPLICATION: *Solar Smart Loop Vehicle Detection***

**LOCATION: Town of Paradise Valley, AZ, U.S.A.**

### ***Description***

The Solar Smart Loop (SSL) is a self-contained vehicle detection system with a wireless link to activate advance solar beacons or other warning devices. The product was developed to work in conjunction with the existing XSR series of solar flashers. It was also developed as an alternative to more expensive video or motion-based detection systems for situations where increased safety is important yet cost is critical. Most government agencies can get a loop in the ground quickly and relatively inexpensive making this an efficient safety upgrade to deploy.

Typically, the SSL unit will be located at a T-intersection where there is limited visibility due to physical obstacles or the road geometry makes it difficult for motorists to see one another. The loop is placed in the ground near the stop bar as in any normal loop detector application. It is powered by the SSL power system which features a low-power EDI loop card, control logic and a license-free radio.

Upon vehicle presence, the loop detector triggers the control logic which features a field-adjustable delay, it sends an ON command to the advance warning devices. The control logic causes the radio to send redundant ON command pulses ensuring transmission reception at the devices. As long as vehicle presence is maintained the SSL will send periodic ON pulses to the advance devices. Also included is a self-test button to allow periodic testing. The control logic LCD screen keeps track of the number of detections per week and duration of detection to allow tracking use. System status is displayed on the screen and the radio set is fully supervised assuring a high degree of reliability.

STC recently fielded an equipment package to the Town of Paradise Valley, AZ. The application was a residential street that emptied into a collector street. There was a dip in the road approaching the intersection which made it difficult for motorists on the collector to see vehicles turning out of the residential street. Several near misses had occurred yet the situation did not warrant installation of a signalized intersection. Town management proacted to residents requests to provide a higher degree of safety at this location. The town also requested all the equipment be finished to match the area color scheme which STC furnished as an option. Installation of the equipment was completed by Richard Overson of the Town of Paradise Valley.



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**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](http://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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