



## “Wireless” Traffic Control Solutions

**APPLICATION:** *In-Roadway Lighting Pedestrian Traffic Signaling Device*

**LOCATION:** Carefree, Arizona, U.S.A.

### **Description**

The desert town of Carefree, AZ is famous for its lack of traffic signals, its minimal street lighting and an unhurried pace. Yes, there's an Easy Street in Carefree.

For years the city's residents shunned any kind of signaling device beyond a static sign until recently when the city activated its first traffic signaling device: an In-Roadway Lighting (IRWL) system near Tom Darlington and Cave Creek Road. The system was set up as a pedestrian crosswalk from a condominium area to the town center. Previously, the nearest crossing was one-quarter of a mile north of the new crossing. Since there are no sidewalks in the area, most residents did not care to walk.

The project was configured by Parsons Brinckerhoff acting as a consultant to ADOT. The street has four through lanes of travel: a left turn and a 9-foot wide median. Acting as the southwest distributor for Traffic Safety Corporation, Solar Traffic Controls provided 12 - TS500 series fixtures for the project along with poles, flashing beacons, pedestrian button stations and a solar power package to run the entire system.

As the roadway is slightly curved, a mix of TS520 and TS550 lamps were used to provide good light-spread to oncoming motorists. Each type of lamp features a bi-directional output with different lenses allowing for a mix of narrow/wide beam and wide/wide beam optical outputs.

Residents were thrilled when the installation began. Many commented on the dangers of crossing at the location with no crosswalk lines and low lighting levels in the area.

STC furnished the system to Rural Electric of Mesa, AZ who worked as the electrical sub-contractor to DCS Construction. Rural Electric provided personnel to perform the installation work. STC provided engineering staff on-site for installation of the system's electrical section. The project was paid for with an ADOT grant based on stimulus funding.



**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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